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PROCEEDINGS

OF THE

Forty-Eighth Annual Convention

OF THE

Ontario Educational Association

HELD IN

TORONTO

On the 13th, 14th and 15th of April, 1909.

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1900	Mrs. Ada M. Hughes.
1901	John Henderson, M.A.
1902	John Seath, LL.D.
1903	David Young.
1904	Rev. Chancellor Burwash.
1905	John Ball Dow, B.A.
1906	William Scott, B.A.
1907	L. E. Embree, LL. D.
1908	W. H. Ballard, M.A.

CONTENTS.

PAGE.
Minutes of the General Association 7
" " College and High School Department 12
" " Modern Language Section 15
" " Natural Science Section 16
" " Classical Section 18
" " Mathematical and Physical Section 20
" " English and History Section 21
" " Commercial Section 25
" " High School Principals' Section 28
" " Public School Department 31
" " Kindergarten Department 51
" " Training Department 53
" " Inspectors' Department 55
" " Trustees' Department 59
" " Home Science Section 69
" " Hygiene Section 71
" " Manual Arts Section 73
" " Continuation Section 76
" " Financial Statement 79

GENERAL ASSOCIATION—

President's Address. W. H. Ballard, M.A 80
Address. Hon. R. A. Pyne, Toronto, Minister of Education 88
Some Modern Ideas on Education. Prof. Charles DeGarmo 91
Teachers' Alliance. L. E. Embree, LL.D 105
Problem Form of Instruction. Prof. Charles DeGarmo 109
Address. A. H. U. Colquhoun, LL.D. 121

COLLEGE AND HIGH SCHOOL DEPARTMENT—

Secondary Schools of England. W. J. Flach, Napanee 129
Secondary Schools of Great Britain. W. J. Sykes, B.A., Ottawa 137

MODERN LANGUAGE SECTION—

Address in German. Baron Nettelbladt 144
On the History of English Spelling. D. R. Keys, M.A 152
The Literary Influence of England on France in the Eighteenth Century. A. F. B. Clark, B.A 161

NATURAL SCIENCE SECTION—

Science Teaching in German Secondary Schools. Carl Lehmann, B.A., Jarvis Collegiate Institute 174

MATHEMATICAL AND PHYSICAL SECTION—

A View of Education Applied to Geometry. J. Matheson, M.A., Queen's University, Kingston 183

ENGLISH AND HISTORY SECTION—

President's Address. History and Canadian Citizenship. A. McVicar, B.A., London 191
Supplementary Reading in the Lower School. W. E. Macpherson 198
English Literature for Junior Matriculation and Entrance to Normal Schools. W. J. Sykes, B.A 205
The Geographical Basis of History. Norman W. De Witt, Ph.D 209

COMMERCIAL SECTION—

Commercial Assets. J. F Wildman, Office Specialty Co., Toronto 220
The Bank Act in its Relation to the Banking System and to some Criticisms of the Banking System. P. McIntosh, Central Business College. Toronto 228

PAGE.

KINDERGARTEN DEPARTMENT—
President's Address. Miss Clara Brenton, London.................. 251
The Educational Value of Stories. Lillian B. Harding, Toronto....... 257
The Influence of Good Pictures. Miss Ida Hillman, Central School, Chatham 261

TRAINING DEPARTMENT—
History in the Public Schools. S. J. Radcliff 267
Why we Teach Art in the Public Schools. Julien R. Seavey, Art Instructor, Normal School, Hamilton............................... 272

INSPECTORS' DEPARTMENT—
Departmental Aid to Teachers. G. K. Mills, B.A., Public School Inspector, North Simcoe.. 283
Exemption from Examination upon the Teacher's Recommendation. Arthur Brown, School Inspector, Morrisburgh 287
Fifth Classes in Rural Schools. H. H. Burgess, B.A., I.P.S., Owen Sound 293
A Compulsory Attendance Act. N. W. Campbell, B.A., Durham, Ont. 296
Medical Inspection of Schools. Professor A. McPhedran, Toronto..... 304

TRUSTEES' DEPARTMENT—
Military Training in the Schools. S. Truman 311
Our Public Schools Then and Now. With a Glance at what may be Anticipated in the Future. Robert McKnight.................... 318
Might not a Larger Place be Profitably Assigned in our Educational System to Night Schools and Evening Classes? Rev. W. T. Wilkins, B.A.. 323
How the Teacher and Trustee can Supply Material for Naval History. Lt.-Col. J. E. Farewell... 330
Rhodes Scholarships. John Ball Dow, B.A., Whitby 337
The Benefits Derived from Physical Training and Medical Inspection. Dr. J. E. Hett, Berlin... 342
The State and its Primary Schools, with some Present Problems. T. A. Reid, Owen Sound 348

HOME SCIENCE SECTION—
Report on English Secondary Schools. Miss Jessie Hills.............. 360
English Household Science Training Schools. Miss A. Laird 361

HYGIENE SECTION—
The Relation of Teacher and Nurse to Medical Inspection. James Roberts, M.H.O., Hamilton.... 366
The Danger to Children of Contracting Tuberculosis from Milk. Dr. Charles J. C. O. Hastings... 377
Education in Hygiene. A means to Protect the Home and Household from Tuberculosis. J. H. Elliott, M.B......... 384
The Life of our Young Nation. Sir James Grant, F.R.C.P., Lond., K.C.M.G.. 391

MANUAL ARTS SECTION—
Connecting the Kindergarten and Manual Training. Edward Faw 404
Manual Training from a Mechanic's View-point. Design and Construction. A. N. Scarrow, Peterboro' 413

LIST OF MEMBERS... 421

PROCEEDINGS

OF THE

Forty-Eighth Annual Convention

OF THE

Ontario Educational Association.

MINUTES OF THE GENERAL ASSOCIATION.

TORONTO, April 13th, 1909.

The Association met in Convocation Hall, University of Toronto, at 8 p.m., the President, W. H. Ballard, M.A., in the chair.

Rev. W. H. Hincks conducted the devotional exercises by reading the third chapter of Proverbs and by leading in prayer.

Moved by Mr. Wm. Scott, and seconded by Mr. D. Young, that as the Minutes of the last Annual Meeting were printed and distributed, they be taken as read and confirmed. Carried.

The Secretary read communications from:

1. Miss Annie J. Evans, of Sudbury; Miss Mearing, of Prince Albert; Miss J. Tanner, of Mount Forest; Miss E. L. Misener, of Leamington, and Miss A. F. Pratt, of Hamilton; all having reference to the teaching of Temperance, Physiology and Hygiene in the Public Schools.

These communications were referred to the incoming Board of Directors.

2. Mr. J. J. Kelso, asking permission for the Rev. Mr. Harris to address one of the Departments or Sections of the Association on Bands of Mercy as an adjunct to school work.

This letter was referred to the Trustees' Department.

3. M. J. D. Buchanan, asking permission to have copies of the programme of the Dominion Educational Association distributed among the members of the Ontario Educational Association during this meeting. This request was granted.

4. Mr. R. E. Young, Secretary Canadian Commission North American Conservation Conference, inviting the Association to consider the "Declaration of Principles" issued by the said Conservation Conference.

This letter and the accompanying "Declaration of Principles" were referred to the next Board of Directors.

President Ballard addressed the Association on "Arithmetic."

Hon. R. A. Pyne, Minister of Education, gave an Address of Welcome to the Association.

Wm. Scott, B.A., presented a report from the Superannuation Committee, which is as follows:

Report of the Superannuation Committee, the Committee on Superannuation beg to report as follows:—

1. No meeting of the whole Committee was held during the year.

2. In November last, the members of the Committee residing in Toronto and its neighbourhood held a meeting at which it was arranged to see the Minister of Education to urge upon him the importance of taking action in this matter. This meeting with Dr. Pyne took place on December 5th.

3. Your Committee has pleasure in reporting that the Government has appointed a qualified actuary to investigate the matter of a scheme of superannuation for teachers. The Education Department is furnishing him with the necessary data regarding the ages of teachers and the length of time of their teaching to enable him to reach a just and equitable conclusion regarding the scheme which your Committee submitted to the Government. We believe that, whether this scheme is adopted in its entirety or not, valuable information will have been obtained so that the way will be clear for future action on the part of the Government.

4. Your Committee, believing as it does that the teaching profession will never be upon a proper basis until a workable scheme of superannuation is in force, ask this meeting to reappoint the present Committee or select another, to keep urging this matter upon the attention of the Government, and it may be furnished the

actuary with such information as it may possess. All of which is respectfully submitted.

actuary with such information as it may possess.

All of which is respectfully submitted.

WM. SCOTT.

Moved by Mr. Scott, seconded by Mr. W. S. Ellis, that the report be received and adopted and that the Committee be requested to continue its work. Carried.

Moved by Mr. W. L. Richardson, seconded by Mr. Chas. G. Fraser, that the evening address given by Dr. Haney in 1908 be published in the volume of Proceedings for 1909.

Moved by Mr. Wm. Scott, seconded by Mr. Daniel Young, in amendment that the advisability of publishing Dr. Haney's address be referred to the Board of Directors for 1909-10.

The original resolution was withdrawn and the amendment was declared carried.

The meeting was adjourned at 9.15 p.m. After the adjournment a reception was held in the Physics room by President Falconer and Professors in the University.

WEDNESDAY, April 14th, 1909.

The Association met at 8 p.m., President Ballard in the chair.

The Treasurer, Mr. W. J. Hendry, presented his report. The report was accompanied by the Auditors' Report and both reports were adopted.

Charles De Garmo, Ph.D., of Cornell University, addressed the Association on "Some Modern Ideas in Education."

The election of officers resulted as follows: President, Henry Ward, B.A., Toronto; General Secretary, Robert W. Doan, 216 Carlton Street, Toronto; Treasurer, W. J. Hendry, Toronto.

L. E. Embree addressed the Association on "The Teachers' Alliance."

Mr. A. McVicar read a report from the English and History Section on "Preservation of Historical Sites," and moved the reception of the report and the adoption of the resolution contained therein. This motion was seconded by Mr. Andrew Stevenson, and was carried.

The following is the report:

ONTARIO EDUCATIONAL ASSOCIATION, SESSION 1909.

Report of the Committee on the Preservation of Historical Sites, Monuments, etc.

In accordance with the recommendation endorsed by the English and History Section of the Ontario Educational Association, at its meeting last year,, in the matter of the preservation for the Province, of historical sites, monuments, etc., the Committee begs further to report as follows:

1. In favor of the appointment by the Ontario Government of a Commission with power to take such steps as may by it be deemed necessary—in as far as that may be possible—to preserve the historical sites, monuments, etc., within the Province of Ontario.

2. That the Commissioners of the Victoria Park, Niagara Falls, with extended powers might be suggested as a proper body corporate for such purpose.

3. That a memorial, such as the following, be presented to His Honor the Governor-General in Council, praying that provision be made in either way as above set forth, viz.:

To His Honor the Lieutenant-Governor of Ontario in Council:

May it please your Honor.

Whereas the Historical Section of the Ontario Educational Association by a resolution of 1906 appointed Messrs. Geo. M. Wrong, Professor of History in the Univerity of Toronto; W. S. Milner, Professor of Ancient History in the University of Toronto; J. Stewart Carstairs, one of the Masters in Harbord Street Collegiate Institute, Toronto, and Alexander Fraser, Provincial Archivist, Toronto, to be a Committee to enquire into the condition of Historical Sites, Monuments, and Buildings within the Province of Ontario; and as to the means that, in their opinion should be adopted to preserve them, and

Whereas the said Committee, having, as the result of an extensive enquiry carried on for three years, as to what has been done in Great Britain, the United States and elsewhere; and as to what the public feeling in Ontario is, in such matters, strongly recommended the appointment of a Royal Commission in which should be vested the Sites, Monuments, Buildings, etc., within the

Province of Ontario, which are of general historical interest, in order that such should be preserved and properly maintained for posterity; and

Whereas the said recommendation was unanimously adopted by the English and History Section of the Ontario Educational Association and by the Ontario Educational Association as a whole at its Annual Meeting in 1909,

Therefore the Ontario Educational Association hereby respectfully memorializes and petitions your Honor in Council that one of the two suggestions following be given effect to, viz.:

1. The appointment of a Royal Commission as recommended above by the Committee to undertake the care of the Historical Places and Monuments set forth in the schedule accompanying this memorial and such others as it may deem desirable; or

2. The extension of the powers of the Commissioners of the Victoria Niagara Falls Park, already dealing with Brock's Monument, Butler's grave, and Lundy's Lane Grounds, so that the said Commissioners may be invested with the necessary authority to deal with the Historic Places, etc., named, or any others in the Province that may be placed under their jurisdiction.

And your petitioners will ever pray, etc.

Signed on behalf of the Ontario Educational Association:

President.

Secretary.

4. That the Committee already acting in this matter, together with the President and Secretary of the Ontario Educational Association, be a Committee to present this memorial to the Ontario Government.

5. That the several kindred Associations known to be interesting themselves in this matter such, for instance, as the Ontario Historical Society, be asked to co-operate with this Committee by appearing with it through a representative, before the Ontario Government.

6. That the Committee be reappointed for another year.

All of which is respectfully submitted.

Committee
J. STEWART CARSTAIRS, *Chairman.*
G. M. WRONG.
W. S. MILNER.
ALEXANDER FRASER.

The meeting adjourned.

THURSDAY, April 15th.

A joint meeting of all Departments and Sections was held in Convocation Hall at 11 o'clock a.m., President Ballard in the chair. Charles De Garmo, Ph.D., addressed the Convention on "The Problem Form of Instruction." Moved by Dr. Burwash, seconded by Mr. Scott, "That the thanks of the Association be tendered to Dr. De Garmo for this exceedingly interesting and instructive lecture." Carried.

The meeting adjourned.

April 15th, 8 p.m.

The Association met in Convocation Hall.

President Ballard in the chair.

A. H. U. Colquhoun, LL.D., Deputy Minister of Education on "The Educational Outlook."

A vote of thanks to Dr Colquhoun was moved by Mr. J. W. Rogers, seconded by Mr. D. Young, and carried.

Mr. Henry Ward, seconded by Mr. R. Alexander, moved a vote of thanks to the University authorities for the use of the University buildings during the meetings of the Association, and also to the publishers of the Toronto newspapers for the full and accurate reports of the work done during the sessions. Carried.

Mr. Wm. Scott moved, seconded by Mr. J. H. Knight, "That the next meeting of the Association be held in Toronto. Carried.

After the singing of the National Anthem the President declared the meeting adjourned.

MINUTES OF THE COLLEGE AND HIGH SCHOOL DEPARTMENT.

April 14th.

The Department met in the West Hall of University College at 9.30 a.m.

The chairman, Dr. W. Pakenham, Dean of the Faculty of Education, Toronto, presided.

By motion, the minutes of the previous annual meeting, printed in the proceedings of the O.E.A., were accepted as read and were approved.

The Secretary reported on behalf of the Executive Committee, that, in order to give more prominence to this Department and to bring about greater unity among the sections, the meetings this year have been arranged for two forenoons instead of the last day of the Association, as heretofore.

Dr. Pakenham delivered his inaugural address on "Undemocratic Features in Modern Education with special reference to training for Vocation."

A discussion on "Matriculation Standards," was introduced by Principal Maurice Hutton, of University College, and Mr. W. S. Ellis, B.A., B.Sc., of Kingston.

Principal Hutton limited his remarks to the number of subjects which should be required for matriculation. He pointed out defects in the present system, to remedy which he suggested two plans: The obligatory subjects to be the same as at present, and either (i) three of the four subjects: Greek, French, German, science, or (ii) three foreign languages to be compulsory, with science excluded altogether as a matriculation subject.

The second scheme was favoured by Principal Hutton and arguments for it were advanced from the necessities of the University.

Mr. Ellis contended that as a student entering on a University course should be capable of coherent, logical thinking, and possess some organized knowledge, the age limit for matriculation was too low, he therefore advocated broadening the course so that a student would be compelled to remain longer in the High School, and that the character of the examination should test capacity or power rather than memory.

Mr. A. H. McDougall, Ottawa, strongly opposed any proposition to increase the number of foreign languages; and Messrs. J. S. Lane, J. N. Denyes, A. P. Gundry, Dr. Galbraith and Dr. Embree also took part in the discussion.

The following motion by Mr. E. W. Hagarty, seconded by Mr. A. P. Gundry, was carried:

"That in the opinion of this Department the options for matriculation should be left as they are at present, with the exception that the standard in science should be raised to that for the Normal School Entrance Examination.

Mr. F. P. Colbeck moved, seconded by Dr. L. E. Embree, "That the College and High School Department recommend to the Minister of Education that Elementary Science be made obligatory on all High School students of the Lower School.

This motion was carried.

The meeting then adjourned.

April 15th.

The second session of the Department met in the same place at 9.30 a.m., with Dr. Pakenham in the chair.

The minutes of the previous session were read and approved.

A communication from Mr. A. Steele, of Orangeville, concerning matriculation standards, and expressing his inability to be present through illness, was announced.

The election of officers for 1909-1910 resulted as follows:

Chairman: Lyman C. Smith, M.A., Oshawa.
Vice-Chairman: Professor D. R. Keys, Ph.D., Toronto.
Secretary: R. A. Gray, B.A., Toronto.
Executive Committee representing the sections:
Modern Languages: G. H. Needler, Ph.D.
Natural Science: F. J. Johnston, B.A.
Classical: H. J. Crawford, B.A.
Mathematical and Physical: T. Kennedy, M.A.
English and History: Professor W. J. Alexander, Ph.D.
Commercial: W. Ward, B.A.

The programme was continued, the subject of "Secondary Schools in Great Britain with reference to their scope, character and methods of teaching" was introduced by U. J. Flack, M.A., of Napanee, W. J. Sykes, B.A., of Ottawa, and Carl Lehmann, B.A., Toronto, who gave the Department the benefit of their personal observation and experience from visits they were enabled to make through the courtesy of the Mosely Commission.

Professor De Garmo gave an interesting address on "The Problem Form of Instruction" in Convocation Hall.

The Department then adjourned.

R. A. Gray,
Secretary.

MINUTES OF MODERN LANGUAGE SECTION.

TUESDAY, April 13th.

The session opened at ten o'clock, the President, Professor Pelham Edgar, in the chair.

After some preliminary business, the President gave an address on "Voltaire and the Eighteenth Century." At the afternoon meeting an exceedingly interesting and entertaining address in German was given by Baron Heinrich von Nettelbladt, entitled "Bilder aus der alten und neuen Welt," based upon the personal experience of the speaker in his native land and America, with instructive comments and comparisons of the two peoples. This was followed by a paper by Professor D. R. Keys, on "The History of English Spelling."

WEDNESDAY, April 14th.

The programme for the afternoon meeting was supplied by Messrs. H. V. Routh and George E. Shaw, the former contributing a paper on "Advantages of Travel," the latter one consisting of observations upon German schools and their methods under the heading "A Schoolmaster Abroad."

THURSDAY, April 15th.

The following officers were elected for the coming year.

President.............. W. C. Ferguson.
Vice-President....... A. H. Young.
Secretary-Treasurer G. H. Needler.
Councillors............ Misses H. Charles, A. E. Marty, Messrs.
M. A. Buchanan, E. S. Hogarth.

The auditors reported the treasurer's account correct.

The Secretary was appointed to act as representative of the Modern Language Section in the College and High School Department.

As a result of the discussion of the minutes the new Executive was instructed to communicate with the Carnegie Institute in

Washington and obtain details regarding the exchange of teachers with foreign countries as carried out by it.

Messrs. Horning, Hogarth and Ferguson were again appointed to act as the Modern Languages Section's representatives at the Minister of Education's conference regarding text-books.

A letter from Professor Squair was read in which he described and commented upon European, chiefly Parisian, schools and educational ideals.

The paper by Mr. A. F. B. Clark, on the "Literary Relations of England and France in the 18th Century," brought the session to a close.

MINUTES OF NATURAL SCIENCE SECTION.

TUESDAY, April 13th, 1909.

The meeting was called to order in the Biological Lecture Room at 2 p.m., by the President, Mr. G. A. Cornish.

The minutes of the previous meeting and the Treasurer's statement were read and adopted.

A communication from the Deputy Minister of Education was read, asking that a committee be appointed by the Section to confer with the Department of Education during the coming year, on the matter of text books.

On motion of Mr. Cosens, seconded by Mr. Fetterly, the old committee, consisting of Mr. Turner, Mr. McCready and Mr. Ivey, was reappointed.

Mr. W. A. Jennings was appointed press reporter.

The President's address on "High School Science and the Universities," was then given by Mr. Cornish.

Following this a paper on "Uses of Literary Studies in High School Education," by W. J. Alexander, Ph.D., was read.

The meeting then adjourned.

WEDNESDAY, April 14th, 1909.

Meeting was called to order by the President at 2.15 p.m.

Mr. Calvert gave notice of motion as follows:

"Whereas, according to the Revised Statutes of Ontario, 1897, Chap. 289, Sec. 2, the birds of prey known as hawk, are specifically exempt from legal protection in this Province.

Whereas, in the opinion of those best qualified to know, the great majority of these birds are of great value to agriculture in keeping in check small rodents and insects,

Be it resolved that the Natural Science Section of the Ontario Educational Association place itself on record as favoring in the strongest manner such legislation as will afford adequate protection to every species of beneficial or harmless bird of prey."

A discussion on "Natural Science Methods" was introduced by Mr. L. H. Graham and continued under the following headings:

"Conducting Chemical Experiments," by W. Donaldson.

"The Student and Apparatus," by G. A. Carefoot.

"Field Work," by Mr. R. Reid.

"Collecting and Preserving Botanical Material," by J. H. Faull, Ph.D.

Further discussion was postponed until next day's session.

The next number on the programme, "Conference with Home Science Section," was not taken up as no representative of the Section was present.

The meeting adjourned at 4 p.m.

THURSDAY, April 15th, 1909.

The meeting was called to order at 2 p.m. The officers for the ensuing year were then elected as follows:

Hon. President	J. H. Faull, Ph.D.
President	L. H. Graham.
Vice-President	D. White.
Secretary-Treasurer and Representative to College and High School Department	F. J. Johnston.
Councillors	A. P. Gundry, E. Morrison, R. A. Brunt, J. F. Calvert, A. Smith.

The newly elected President then took the chair.

Mr. Calvert then re-stated his motion *re* preservation of beneficial birds of prey, and it was carried.

The last item on the programme, "Discussion of the New Curriculum in Elementary Science," was taken up by J. B. Turner and T. J. Ivey.

After considerable additional discussion by many members the Section, it was seen that the general opinion was that course was still a little too lengthy and that the intrepretation some parts was not clear.

A vote of thanks, moved by Mr. W. J. Hamilton, seconded A. Pearson was then tendered the Committee for the work th bad done.

The meeting adjourned at 4.30 p.m.

No papers were ordered to be printed in the Proceedings the Association.

F. J. Johnston,
Secretary.

MINUTES OF THE CLASSICAL SECTION.

Tuesday, April 13th, 1909.

The Classical Section met in Room 13, University Colleg with the President, Mr. C. A. Mayberry, in the chair.

The minutes of last meeting were read and approved, and Mr. L. Barnes was appointed press representative. The Preside addressed the members on "The Position of Latin in Relation Teachers' Examinations," claiming that Latin should not made an optional subject for the junior examination, that fe pupils, who allowed the Latin to rest for this examination, ev proceeded to the higher; that it meant the eventual removal Latin from the entire course.

Professor Milner gave an admirable address on "The Teac ing of Cæsar." He emphasized the importance to the teach of a thorough knowledge of the political and social life of t time; and of a careful study of Cæsar's style and personality. H advocated the reading of selected chapters to cover the who story of the Campaign in Gaul, much of which might be done sight. He also gave a list of books to be consulted, among whic were: Ferrero's "Cæsar," Phyle's "Order of Words in Greek ar Latin," Warde Fowler's "Cæsar," Judson "Cæsar's Army, Holmes' "The Conquest of Gaul," Colonel Dodge "Cæsar."

Mr. Lyman C. Smith read a poem on, "Ulysses," compose for the occasion. The author mentioned the difficulty of makin a modern hero out of one who did some things so foreign to modern customs. The difficulty did not seem to interfere with Mr. Smith's enjoyment of the immortal bard.

The following officers were elected:—

Honorary President............	J. E. Hodgson.
President.........................	G. W. Johnston.
Vice-President..................	Lyman C. Smith.
Secretary-Treasurer............	D. A. Glassey.
Councillors........................	G. A. Ferguson, J. D. Morrow, G. Oswald Smith, J. K. Mills.

Owing to Dr. Johnston's absence from the city, his paper on "The Archæological Society" was not read.

The Committee to consult with the Minister of Education on text books reported progress, and were continued in power for another year, Prof. Milner to act for Principal Hatton during his absence from the city.

WEDNESDAY, April 14th, 1909.

At 2 p.m. the Association again met in Room 13. Dr. Bell read a paper on "The Homeric Question," reviewing the opinions of Wolfe, Hermann, Lachmann, Paley, Lang. He dealt with much appreciation on the enthusiasm that inspired Schleiman to visit the East and begin excavations that have led to such important results.

Much interest was aroused by the reading of Thucydides II. 40; (1) in the Scottish method by Mr. Auden; (2) in the Oxford method by Prof. Hatton; (3) in modern Greek method by Prof. Ramsay Wright. An interesting discussion followed on Greek pronunciation and the use of the accents.

Mr. J. A. Macdonnell read a very bright and clever paper on his experiences at Oxford as Rhodes Scholar. He noted the remarkable proficiency in Classics of the Oxford undergrad. the influence on him of his training and his cultured home, of his discipline and thoroughness, of his desire to be somebody rather than something. The speaker felt the Oxford type to be almost too critical to be capable of enthusiasm, He also showed the influence for good of his study of Classics upon his later political career.

Mr. G. Oswald Smith, read two odes of Horace to illustrate metre, and Mr. E. W. Hagarty read the opening lines of Æn II. to show how much might be made out of the spirited readi of the poem.

The meetings then closed for the year.

MINUTES OF THE MATHEMATICAL AND PHYSIC SECTION.

TUESDAY, April 13th, 1909.

Registration of members commenced at 1.30 p.m., and ab 2.15 the President, Mr. W. Taylor, called the meeting to order

The minutes of the previous meeting were read and confirm

On motion of Mr. Wightman, Mr. Keith was appointed p reporter for the section.

The Committee, Messrs. Crasweller, Gray, and Hoga appointed to confer with the Minister of Education *re* text-boo gave a short report of their work.

Moved by Mr. Rand, seconded by Mr. Rogers, "That Mes Crassweller, Gray, and Hogarth, be reappointed to confer w the Minister of Education *re* text-books. Carried.

The President, Mr. W. Taylor, then gave his address: Study after the Method of Plato," which was received with m interest.

Mr. H. S. Robertson not having his paper prepared, the S retary presented a few "Mathematical Fallacies" for the conside tion of the section.

Moved by W. J. Robertson, seconded by R. A. Gray, "T our representatives on the University Senate be asked to use t influence towards having Honor Matriculation Mathematics essary for matriculation to the School of Practical Science. Carri

On motion of Mr. R. Wightman, the Secretary was appoin the representative to the High School and College Department

The meeting adjourned till Wednesday at 2 p.m.

WEDNESDAY, April 14th, 1909.

After further registration of members, the meeting was cal to order, President Taylor in the chair.

The first item was the election of officers, resulting as follows: l by acclamation:

Honorary President... W. Taylor, B.A.
President................. J. D. Dickson, B. A.
Vice-President......... Jno. Elliott, B.A.
Secretary-Treasurer... T. Kennedy, M.A.
Councillors............ J. T. Crawford, B.A., W. W. Nichol, B.A., E. T. Seaton, B.A., J. S. Wren, B.A., W. L. Sprung, B.A.

Mr. R. Wightman then discussed the Junior teachers' Algebra per for 1908, giving a review of the marks awarded for solutions, rfect and otherwise, to the various questions. Considerable dis-ssion followed, led by Dr. Birchard, Messrs. Crawford, Nichol, d others.

Prof. Matheson then gave a very interesting and thoughtful per on "A View of Education applied to Geometry."

Owing to other meetings at this hour, discussion was impos-ble. It was the request of the meeting that the paper be pub-shed in the Report of the Association.

The meeting then adjourned.

T. Kennedy,
Secretary.

THE ENGLISH AND HISTORY SECTION.

Tuesday, April 13th, 1909.

This section opened its sessions on Tuesday morning in Room , the President, Mr. A. McVicar, in the chair.

On motion of Messrs. Horton and Stubbs, it was decided that e minutes as printed in the proceedings be taken as read, and proved.

The President's address on "History and Canadian Citizenship" oved very interesting and will be printed in the Proceedings.

Mr. W. E. Macpherson followed with a paper on "Supplement-y Reading and Class-room Literature for Lower School."

After emphasizing the value of reading, he recounted various oblems confronting the teacher, and suggested solutions. He named several excellent aids to the teacher in selecting suitable reading and ended by submitting a list of books for use by the pupils.

In the discussion, Dr. Pakenham and Mr. W. C. Ferguson gave many excellent suggestions, and notice of motion was given looking to the publication of a list of suitable books.

A paper on "Literature for Matriculation and Entrance to Normal Schools was read by Mr. W. J. Sykes, B.A. He made specific suggestions which in the main met with the approval of the section, and his paper will appear in the "Proceedings." The discussion was opened by Miss Lawler, who was followed by Mr. J. Jeffries, Prof. Dyde, and Mr. Carscadden. It was agreed to postpone definite action upon the suggestions of the paper until Wednesday afternoon. Miss Lawler gave notice of a motion concerning the course in Grammar.

Prof. W. F. Tamblyn read a very interesting and instructive paper on "The Comparative Method of Studying Literature."

AFTERNOON.

Two Toronto journalists were the principal speakers in the afternoon session of the English and History section. Mr. John A. Ewan opened with a paper on "What the High Schools Can Do for English Composition," in which the main theme was that composition could only be effectively taught by fostering in the mind of the pupil an admiration for passages in literature, and that one way of saturating the mind with good forms and implanting a vocabulary there, was to make a practice of committing passages in both prose and poetry to memory. They are better to be somewhat ornate, as they will thus readily satisfy the taste of youth, and in the end will do no harm to the written manner of the student. Time invariably lops off excrescences, and yet leaves certain richness in the sentences in contradistinction to the flatness and thinness that usually characterizes the earlier efforts at expression. Mr. Ewan particularly advocated familiarity with the Bible as the unapproached and unrivaled repository of a style at once simple and splendid.

The discussion was opened by Miss Thomas, who emphasized the need of individual effort by the pupils especially in oral composition.

Mr. Cooper opened a discussion on "The Outlook for the Canadian Writer." He paid a tribute to the work of the high school teacher by stating that he could almost invariably detect the high school scholar in writings which were submitted to him by an excellence of construction.

Toronto had an art school and for the sake of art he hoped that Toronto University would not establish an art department. If it did, he would fear for art, as the educational system was so prone to sink into a rut, to a mere making of rules.

The journalist, or publisher of journals, takes a course opposite to that of the schools. Instead of worshipping past models, he tries to make every publication something new.

"The trouble," said he, "with most of the essays I have read is not form, not expression, but lack of soul. Education is too much a matter of routine. What we need is an educational rebellion. Let us have something which will develop manhood in our children."

As for the writer himself, there is a great opportunity for enduring work afforded in the developing of national life in Canada; writers who would give inspiration, describe the eccentricities and characteristics of Canadian life, and the beauties of the scenery, and send them on, transformed into language.

In the development of a Canadian literature, the school teacher is a potent influence. The teacher yields this influence by seeking to uproot the idioms of language acquired in the streets.

The teacher can influence the writer in three ways: First, the ability to write, and especially to speak, should be cherished; secondly, by inspiring new writers, and thirdly, by patronage.

Mr. A. Stevenson did not think a distinctly national Canadian literature possible.

Mr. Kylie agreed with Mr. Cooper in his protest against the rigidity of our present system, and in his appeal for the freedom of the teacher. Yet great literature should be cherished. Novelty is not always desirable. Individuality and initiative do not always mean advance. Our school system has not made organic connection between the vital ideas in literature and the life of the pupil. The schools must preserve the great standards of literature and history.

Mr. Mowbray thought it important that we should cultivate a national literature, Canadian in tone and spirit.

Hearty votes of thanks were tendered to Mr. Ewan and **Mr.** Cooper for their important and forceful addresses.

WEDNESDAY AFTERNOON.

April 14th, 1909.

The Section met in Room 8.

The report of the Nominating Committee was received, and adopted as follows:

President............... A. Stevenson, London.
Vice-President........ E. J. Kylie, Toronto.
Secretary-Treasurer. C. W. Horton, North-West High School, Toronto.
Director................. Prof. W. J. Alexander.
Councillors........... Misses J. Thomas and A. Hotson; Messrs. W. J. Sykes, A. W. Burt, L. J. Petit, T. Carscadden, and A. McVicar.

On motion of Messrs. Ferguson and Jeffries it was decided that a committee consisting of Mr. Macpherson, Mr. Horton and Miss Lawler be appointed to draw up and have printed for distribution among the teachers, a list of books suitable for Supplementary Reading in the Lower School.

On motion of Mr. W. J. Sykes, seconded by C. W. Horton, it was resolved to recommend for Junior Matriculation literature:

1. That a play by Shakespeare be retained;

2. That for other poetry there be a three years' rotation as follows:

   (*a*) Selections from Victorian poets;
   (*b*) Selections from Early Nineteenth Century poets;
   (*c*) Selections from Eighteenth Century poets.

3. That suitable prose, preferably representing the same period as the poetry studied that year and of the expository or argumentative type be prescribed;

4. That an outline of the history of literature for the period studied that year be required.

In response to a communication from the Deputy Minister of Education, a committee was appointed to confer with the Minister on text-books, consisting of the President, Vice-President and Secretary.

A paper followed by Prof. N. W. De Witt, B.A., Ph.D., on "The Geographical Basis of History." This paper appears in the "Proceedings." Mr. W. J. Robertson spent a few minutes in discussion, voicing the regret of all, that time would not permit adequate discussion of the topic so well treated by Prof. De Witt.

"The Use of the Lantern in the Teaching of History" was very attractively demonstrated by Prof. Lavell. By the use of the projection lantern, various historic spots can be made to appear remarkably real. Rome, Athens, and Venice were selected and the value of the method finely shown.

Mr. Forfar followed with many practical suggestions concerning aids in the teaching of history. Further contributions with hints and information concerning slides, lanterns, etc., were made by L. J. Petit, Prof. Abbott, and Prof. Lavell.

The Report of the Committee in the "Preservation of Historical Landmarks" was presented by Mr. J. S. Carstairs. It was adopted and ordered to be sent on to the General Association, in order that its recommendations might be carried out.

C. W. Horton,
Secretary-Treasurer.

MINUTES OF THE COMMERCIAL SECTION, 1909.

President................E. C. Srigley Peterborough.
Vice-President........Miss G. M. Watterworth, Ridgetown.
Secretary-Treasurer C. E. Jamieson, St. Catharines.
Councillors............ Miss G. Wilson, Vankleek Hill; Miss C. Bridgeman, Sarnia; J. J. Bailey, T.H.S., Toronto; Wm. Ward, T.H.S., Toronto; L. W. Taylor, Guelph; A. F. Birchard, Cornwall; J. A. Dickinson, London.

Representative to General Executive, Wm. Ward.

Tuesday, April 13, 1909.

The Commercial Section of the O. E. A. met on the above date in Room 19 of Toronto University, Main Building. In the absence of the President, F. W. Edward, of Chatham, the chair was taken by the Vice-President E. C. Srigley of Peterborough.

The minutes of the last meeting were read and approved.

Moved by Wm. Baird, seconded by J. A. Dickinson, that W. Ward act as press reporter for the Commercial Section. Carried.

Communications were read from:

1. The Secretary of the General Association.

2. The Deputy Minister of Education, asking this Section to again appoint a committee of three to confer with the Minister of Education in regard to text books and course of study.

It was decided to leave the appointing of this committee over until after the present Committee had reported.

Moved by W. Ward, seconded by C. E. Jamieson, that the Secretary Vice-President and J. A. Dickinson be the Nominating Committee. Carried.

The Question Drawer Committee was not appointed, no use having been made of it in past sessions.

The Vice-President stated that on account of short notice and pressure of work, he was unable to prepare a lengthy address, but in a few pointed remarks, shewed the importance of the Commercial Section and Commercial work.

Mr. H. S. Mott, of Ryerson School, gave a very practical paper on Spelling with Commercial Classes. He emphasized the importance of combining methods and not becoming slaves to any one. He pointed out a number of reasons why pupils spelled incorrectly, and suggested methods of improvement, giving illustrations in a number of cases. He showed that where an actual test had been made, copying, with low speaking gave the best results in teaching new words. In teaching he showed the importance of (*a*) dividing words into syllables, (*b*) giving meaning and derivation of words, (*c*) combining language and spelling, (*d*) giving meaning of word and asking for word, (*e*) giving short lessons, 15 or 20 words and insisting on no mistakes.

This paper was followed by discussion by several of those present, who stated that they had experienced much the same difficulties as had been pointed out by Mr. Mott and gave their methods.

The Committee on Proposed changes then reported. The Vice-President gave a general outline of what was done, stating that the Superintendent of Education would not listen to the proposal to establish a Departmental Commercial examination, but asked for suggestions with regard to the course.

Mr. W. Ward, followed with a detailed account of the different interviews with the Superintendent of Education, and gave a synopsis of proposed courses.

This evoked much discussion, especially Bookkeeping, and optional subjects. It was pointed out that it was impossible to get over the work assigned for 1st year's Bookkeeping in six months or even a year, with any degree of efficiency. Method of examination was also criticized.

Moved by A. Voaden, seconded by W. Baird, that the same Committee be appointed to interview the Superintendent of Education and urge that those schools having separate Commercial courses, be allowed to treat Drawing, Algebra, French or German as optional. Carried.

The matter was left over till Unfinished Business.

The meeting then adjourned.

WEDNESDAY, April 14, 1909.

The minutes of yesterday's meeting were read and approved.

The Chairman appointed Mr. Voaden, Mr. Taylor and Miss G. M. Waterworth as a committee to review the examination papers that were prepared.

Mr. J. J. Bailey gave an outline of a lesson in penmanship, showing how to develop the capital O and small o, the capital C and small c, the capital E, capital A and small a. A discussion followed on several points mentioned by Mr. Bailey.

This was followed by an excellent paper on "Commercial Assets," by J. F. Wildman, giving the business man's views of what is considered as valuable assets in Commercial students. The subject was handled in a masterly manner. He strongly emphasized the need for more commercial knowledge for those entering business life and the advantage it would be to have a Commercial course in our University, leading to a degree. The paper will appear in full in the minutes, on motion of J. J. Bailey and A. Voaden.

Mr. Wildman was tendered a vote of thanks.

Mr. P. McIntosh gave a detailed account of the Bank Act, and the present agitation regarding the Canadian Banking system.

The paper showed much research on a subject on which it is difficult to obtain information. On motion of Messrs. Ward and Birchard the paper will appear in full in the minutes of the Association. A vote of thanks was also tendered Mr. McIntosh.

Mr. Dickinson brought in a motion, arising out of Unfinished Business, seconded by C. E. Jamieson, (1) that this Section is of opinion that any text book which the Educational Department may authorize for the use of students in the Teachers' Course should contain sufficient material to meet the requirements of students in the first year of the Special Commercial Course in the larger High Schools and Collegiate Institutes. Carried.

(2) That in the opinion of the Commercial Section, the High School Inspector should base his report upon the work of the various schools, not alone on the prescribed sets, but on the result of term examinations, held during the year, and that the pupil's examination standing be shown on the examination sets presented for inspection. Carried.

The Revising Committee reported that the Commercial Diploma papers were satisfactory. The Secretary was instructed to have papers printed and to furnish to the teachers of the Province at the rate of twenty-five cents for the first set and five cents for each additional set.

The Nominating Committee brought in their report and the officers were duly elected.

Meeting then adjourned till next year.

MINUTES OF THE HIGH SCHOOL PRINCIPALS' SECTION.

The Section met in the West Hall, Tuesday, April the 13th, at ten a.m., President Colbeck in the chair. After the adoption of the minutes of the previous year the President read his address on "The Utility of the Principals' Section." In the discussion that followed the paper a motion was introduced by W. S. Ellis, seconded by A. W. Burt, "That a Committee of three members be appointed to watch matters of a legislative character and items embodied in regulations affecting the High Schools. Further that the Department be notified that such a committee exists, and that the High School Principals' Section requests that this Committee will be consulted in such matters as those above mentioned.'' This was carried and Principals Burt, Ellis and Mayberry were appointed. Later a communication was received from the Deputy Minister of Education inviting the appointment of a committee to confer with the Minister of Education on High School courses and regulations, and the same committee was empowered to act in this capacity. In order to meet expenses, on motion of Principals Ellis and Crasweller, an annual fee of fifty (50) cents from every principal in the Province was fixed upon. Principals Ellis, Burt, Mayberry, Embree, Gundry, Martin and Henderson took part in the discussion on the motion of Mr. Ellis, and there was manifested a strong feeling that the enforcement ot the regulations regarding approved schools was working injustice in many cases. A resolution by Dr. Embree, seconded by Principal Henderson was carried, requesting the Committee to prepare a remonstrance to be submitted to the Section at their afternoon meeting. A paper was then read by C. C. Arthur on "The Experiences of a New Principal." His humourous treatment of the subject met with appreciation. The topic of "Proposed Changes in Matriculation," was ably treated by A. H. McDougall, and practical remarks were added by A. P. Gundry, W. N. Bell, E. W. Hagarty and Dr. Embree. The following motion by Principal McDougall was then carried unanimously.

Resolved, "That in the opinion of the High School Principals' Section of the O. E. A. the standard required for matriculation can only be raised by improving the quality of the work done in the different subjects and not by increasing the quantity of such work; and that in particular not more than two languages for Arts and not more than one for Applied Science in addition to English should be obligatory."

The officers for the ensuing year were chosen as follows:

President......................A. W. Burt, Brantford.
Secretary......................H. J. Crawford, Toronto.

The Section resumed at one-thirty p.m. and the following remonstrance addressed to the Minister of Education was unanimously approved:

"The members of this Section are unanimous in feeling that in the interests of secondary education it is necessary to call your attention to the encroachments upon the freedom and the initiative of the masters and teachers which have recently been developing in connection with the interpretation and enforcement of the regulations of your Department. This feeling is so strong and so general that we think it is only just to you that you should be made cognizant of it.

"In place of the additional freedom in the conduct of the schools which the Department expressly stated it desired the Principals should have in the changed conditions recently introduced, we find that the opposite has arisen; our freedom has been curtailed in the apportionment of time among the different subjects at the various stages of the course, in the distribution of the work among the teachers of the staff, and in the extent and character of the details of the various courses prescribed.

"We are convinced that the method of determining the character of the teacher's work by examination of note-books is at variance with sound educational principles and cannot fail to lead to mischievous results.

"Any modifying of regulations or any interpretation not manifest in the language used should be made known at the beginning of the school year, not deferred until the inspector makes his annual visit.

"Matters of detail which may be proper subjects of discussion between Inspectors and Principal, and which are either questions of judgment or which depend on local conditions, should not be made subjects of condemnatory reports.

"In view of the repeated statements by yourself and the Premier that suggestions will always be welcome from those engaged in the work of education, we have every confidence that we have only to call your attention to these conditions in order to secure improvement in these respects."

This remonstrance signed by the sixty Principals present was presented to the Minister at four p.m., on Wednesday, April the 14th by a deputation of one hundred and twenty-five (125) High School masters. The deputation was introduced by W. S. Ellis; the resolution was read by Jas. Davison and supported by A. W. Burt, H. I. Strang, W. N. Bell and J. S. Jamieson. The Minister gave the deputation a courteous and sympathetic hearing, asked for a statement of specific grievances and promised an early consideration.

H. J. CRAWFORD,
Secretary.

MINUTES OF THE PUBLIC SCHOOL DEPARTMENT.

TUESDAY, April 13th, 1909.

The Public School Department of the Ontario Educational Association met in the East Hall of the University of Toronto.

The meeting was called to order at 10 a.m.

Mr. Geo. A. Cole, President, in the chair.

The President read a portion of Scripture and led in prayer.

Chas. G. Fraser was elected Minute Secretary and J. W. Rogers, M.A., and J. Bennett, Auditors.

As the minutes of last year's meetings were printed in the Annual Report of the Proceedings, they were taken as read, and adopted.

The following Communications were presented:

1. From Local Teachers' Associations, each donating to this Department of the Ontario Educational Association the following amounts:

Belleville	$2 00	Oxford	$2 00
Essex	2 00	Perth	2 00
Frontenac	2 00	Peterboro	2 00
Hastings, S.	2 00	Prescott and Russell	2 00
Huron, W.	2 00	Simcoe	2 00
Kingston	2 00	Toronto	5 00
Lambton	2 00	Waterloo	2 00
Lanark	2 00	Wellington, N.	6 00
Leeds, I.	2 00	Wellington, S.	2 15
Norfolk	2 00	Wentworth	2 00
Ottawa	2 00	Windsor and Walkerville	2 00

2 From the Secretary, Dominion Educational Association, *re* the 1909 meeting of the D. E. A. in Victoria, B.C.

3. From the Secretary, National Educational Association *re* the 1909 Meeting of the N. E. A. in Denver, Col.

4. From the Secretary, Daughters of the Empire, *re* School Correspondence between Canada and Britain.

5. From the officers of the Ontario Educational Association and its Departments, *re* the 1908-1909 Business of this Department.

6. From the Local Teachers' Associations *re* The Resolutions of this Department for 1908.

7. From the Waterloo County Teachers' Associations, *re* Grammar and Arithmetic Examinations for Teachers' Certificates.

8. From West Middlesex Teachers' Associations, *re*:
  (*a*) The Granting of Permits to Teach;
  (*b*) Comic Supplements in Canadian Newspapers.

9. From Windsor and Walkerville Teachers' Association, *re* Teachers' Excursion to Britain during the holidays.

These Communications were received and referred to the Committee on Resolutions.

On motion of H. Ward and J. A. Short, the President was instructed to appoint the Committee on Resolutions and was given till the afternoon to make the selection.

The Secretary, Chas. G. Fraser, then presented his report, outlining the work of this Department for the year. It was referred to the Committee on Resolutions.

The Treasurer, J. T. Curtis, then presented his report:

Balance from 1907-1908	$63 23
Members' Fees (including General Ass'n Fees)	184 50
Receipts from Local Associations	51 15
Total Receipts	$298 88
Paid Members' Fees to the General Association.	$91 50
Paid Railway Agent	38 00
Paid Secretary	50 00
Paid Expenses of this Department	41 08
Total Expenditure	$220 58
Balance on Hand	78 30

The Report was received and referred to the Auditors.

Secretary Fraser then presented the report of the Legislation Committee and it was referred to the Committee on Resolutions.

T. A. Reid, on behalf of the Committee on "The Proper Recognition of Urban Schools in Legislative Grants," reported progress and asked permission to report again on Thursday morning.

The report was received and the request granted.

J. W. Plewes presented the report of the Committee on "History and Geography." See page——.

It was moved by J. W. Plewes and seconded by John Rogers, "That the report be received and adopted and forwarded to the Education Department. Carried.

The following notices of motion were received:

(1) From T. A. Reid, *re* teachers of twelve years' experience becoming contributors to the present superannuation scheme.

(2) From Thos. Packer, *re* Supplementary Reading for Entrance;

re A percentage of the Government Grant being spent on Equipment;

re The form of the present School Registers.

The meeting then adjourned.

AFTERNOON SESSION.

Joint Meeting of Two Departments—Training and Public School.

Meeting called to order at 2 o'clock.

G. A. Cole, President Public School Department, in the chair.

Inspector W. F. Chapman, B.A. presented the Report of the Joint Committee on the "Division of the Public School Curriculum," which, by the kindness of the Minister of Education, Hon. Dr. Pyne, was in printed form. He called attention to the nature of the work in hand and the salient features of the report.

The Report was received and a general discussion took place.

It was moved by R. A. Ward and seconded by E. T. Young, "That in the opinion of this meeting it is not advisable that the Syllabus of work in the different subjects should be divided into monthly instalments."

It was moved in amendment that as the division of work into monthly apportionments is merely a suggestion, this feature should be retained.

The amendment carried.

The meeting then adjourned.

WEDNESDAY, April 14th, 1909.

MORNING SESSION.

Meeting called to order at 9.15.

President Cole in the chair.

The President read a portion of Scripture and led in prayer.

The Minutes of Tuesday's sessions were read and adopted.

According to notice, T. A. Reid, seconded by John Rogers, moved, "That any teacher who has taught twelve years or more in the Province shall be allowed to become a contributor to the present Superannuation Scheme and come within the scope of its benefits by a present payment of the present worth of the annual payments covering his term of service, and it shall be lawful for a School Board to make such payment for a teacher in its service." Carried.

The Vice-President, Jas. D. Denny, B.A., was called to the chair, and after thanking the members for the honor they had conferred upon him in electing him to the position of Vice-President of perhaps the most important department of the Ontario Educational Association, he called upon Geo. A. Cole, who delivered the President's address.

It was moved by E. T. Young and H. Ward, B.A., "That the President's address be forwarded to the Printing Committee and incorporated in the Report of the Proceedings." Carried.

E. T. Young and R. A. Ward then addressed the meeting in the interests of the Ontario Teachers' Association, and opportunity was given those who wished, to become members of the Alliance.

The election of officers was then held and resulted in the following:

President	James D. Denny, B.A., Ottawa.
Vice-President	Wm. Linton, Galt.
Director	Geo. A. Cole, Orillia.
Secretary	Chas. G. Fraser. 10 Sylvan Ave., Toronto.
Treasurer	J. T. Curtis, Guelph.
Auditors	J. W. Rogers, M.A., Toronto. J. Bennett, Toronto.

The meeting then adjourned.

AFTERNOON SESSION.

Joint Meeting—Four Departments.

Inspectors', Training, Public School, Hygiene.

Meeting called to order at 2.20 p.m.

Geo. A. Cole, President Public School Department, in chair.

The Report of the Committee on a Compulsory School Attendance Act was presented by Mr. H. Ward.

The discussion was carried on by Inspector N. W. Campbell for the Inspectors' Department and Dr. Helen McMurchy and Dr. Knight for the Hygiene Section.

Inspector Major Craig, M.P.P., expressed the opinion that the Truancy Act as now passed was valueless and suggested the appointment of a committee from the various sections to wait upon the Minister of Education advocating changes in the Act which would meet the requirements of the situation.

It was moved by E. T. Young and seconded by W. E. Foster, "That in view of the information that has been laid before us in joint session assembled, a joint committee consisting of two representatives from each department at present assembled, be named by the chairman of the respective departments and that an invitation to co-operate be sent to the other departments of the Ontario Educational Association, and that this committee be given power to act." Carried.

The Committee on Resolutions for the Public School Department was then announced and consisted of Messrs. J. Bennett, W. E. Foster, Wm. Linton, J. W. Rogers, W. E. Marriott, J. E. Hallett, E. T. Young, C. E. Kelly, J. D. Gowland, and the officers of the Public School Department.

The meeting then adjourned.

THURSDAY, April 15th, 1909.

MORNING SESSION.

Meeting was called to order at 9.45.

President Cole in the chair.

After opening exercises the minutes of Wednesday's sessions were read and adopted.

Mr. T. A. Reid presented the report of the Committee on "The Proper Recognition of Urban Schools in the Legislative Grants. See page——.

On motion of T. A. Reid and J. Bennett, the report was referred to the Committee on Resolutions for consideration with other resolutions to be forwarded for the consideration of the Minister of Education.

Motions of which notice had been given were then taken up.

It was moved by Mr. Packer and seconded by Mr. Clarke, "That the number of books required for supplementary reading in rural Schools, for Entrance pupils, should not be more than two, and that these should be selected by the Education Department and be the same for the whole province."

It was moved in amendment by R. A. Ward and J. Bennett, that the motion be referred to a special committee of three, of which Mr. Packer shall be one, to consider the question and report at a later stage of this session. Carried.

Messrs. Thos. Packer, C. A. Moore and R. A. Ward were named as the committee.

The usual allowances were voted to the Secretaries and the Treasurer; and two dollars was voted to Mr. R. A. Ward for his assistance to the Treasurer, but Mr. Ward expressed his pleasure in being able to render assistance and declined to accept the amount.

It was moved by R. A. Ward and J. D. Denny, that we request the Education Department to take no action in issuing a new syllabus of Public School work for one year.

This motion was modified to read as follows:

"Whereas the Joint Committee of the Inspectors' and the Public School Departments of the O. E. A. has given much time and thought to the production of a suggestive syllabus of work;

And whereas, through the courtesy and assistance of the Minister of Education, Hon. Dr. Pyne, we have had the result of the findings of this Committee placed in our hands in printed form with a request for criticism and suggested improvement;

And whereas, in the opinion of the Public School Department of the O. E. A., it is very desirable that the Public School Teachers of the Province should have the opportunity of putting this syllabus to a practical test in their school-rooms;

Therefore, we respectfully request the Education Department to take no action in issuing a syllabus of work for Public Schools until after next year's meeting of this Association;

And we authorize the Executive of the Public School Department of the O. E. A., to give this subject a prominent place on next year's programme." Carried.

The committee was instructed to send the extra copies of the syllabus of work to the various Public School Inspectors for distribution.

Mr. J. Bennett then presented the report of the Committee on Resolutions, which was received and considered clause by clause and carried. (See page —.)

The Committee on Supplementary Reading presented its report, which was as follows:

That the Committee on Resolutions be instructed to bring to the attention of the Minister of Education the following difficulties in regard to Supplementary Reading for Entrance work, in public schools in general and in rural schools in particular; and that the Department be requested to remove these difficulties at the earliest possible date:

(*a*) The difficulty of procuring the books through local dealers and often even through metropolitan dealers.

(*b*) Books chosen are sometimes unsuitable.

(*c*) Books chosen are often too expensive.

(*d*) Often the book list is not furnished early enough. We think it should be given not later than June.

It was moved by Thos. Packer and seconded by C. A. Moore, that the report be received and adopted. Carried.

The meeting adjourned at 11 a.m., that the members might attend the meeting of all the departments in Convocation Hall.

Afternoon Session.

The meeting was called to order at 2.30 p.m.

President Cole in the chair.

Mr. Plewes, of Chatham, Mr. Reid, of Owen Sound, Mr. Rogers, of Lindsay, and Mr. Jordan, of Kingston, members of the Advisory Council, then addressed the members, giving, as far as their "oath of office" would allow, a resume of the conditions under which the Council was laboring.

Miss H. E. Johnston, the other Public School representative on the Advisory Council, sent a letter of regret at being unable to be present and take part in this report as she was out of the city.

Mr. McJanet, of Ottawa then gave a most excellent address on "The Proper Recognition of the Public School Teacher," showing that if the teacher lives up to the possibilities of his position and leads the boys and girls to the higher level of citizenship, if he is sincere in his efforts and definite in his aim, he will not fail to secure proper recognition.

A vote of thanks was passed to Mr. McJanet for his most inspiring address.

It was moved by Mr. R. Brandon and Mr. C. A. Moore, that the Honourable the Minister of Education be requested to submit the question of the qualification for Public School Inspectors' certificate to the Advisory Council for consideration and advice. Carried.

The Hygiene Section then joined for a Special Joint Meeting.

President Falconer in the chair.

Sir James Grant read a most excellent paper and a Canadian Branch of the International Congress of School Hygiene was organized.

The meeting then adjourned.

CHARLES G. FRASER,
Secretary.

REPORT OF THE COMMITTEE ON HISTORY AND GEOGRAPHY.

To the Chairman and other members of the Public School Department of the Ontario Educational Association:

We, your committee to whom was referred the question of text-books in History and Geography, begs to report as follows:

That, since our last meeting, it has become clear that the Department of Education has formulated its policy of one text-book in each subject with supplementary readers to be supplied without cost to the individual pupils.

Therefore, we beg to add to the original subject referred to us, some remarks touching the kinds of supplementary readers to be employed. Also since the Department has decided to issue a teachers' book to accompany the pupils' texts, some of the original items disappear.

The History course requires:

1. Pupils' text-books, English and Canadian, for Senior Classes.

2. Readers for all the pupils, graded according to style and subject, and thus made interesting to all the several ages of school children.

3. The text-books should be:

(*a*) Complete—contain sufficient matter for the Fifth Class, but not necessarily contain all the teacher should know.

- (*b*) Arranged neither exclusively topically, nor chronologically, but permit of the use of the teacher's own ideals.
- (*c*) Printed on good paper; in large type.
- (*d*) Supplied with appendixes, giving chronological tables and dates.
- (*e*) Well proportioned as regards the relative importance of each topic and the amount of space devoted to each.
- (*f*) Should have a chapter, or chapters, on Civics.
- (*g*) The British History should have a chapter on the growth of the Empire.
- (*h*) The Canadian History should devote proper attention to each and every province.

4. The Supplementary readers should be:
   - (*a*) Various. Different sets should be approved by the Department to suit different conditions, *i.e.*, an eight-set series for cities and towns; a four-set series for other schools.
   - (*b*) Well illustrated and interesting.
   - (*c*) Graded to the abilities of different grades, *i.e.*, (i) The story stage; (ii) The narrative stage; (iii) The topic stage.
   - (*d*) Numerous—one book for each pupil.
   - (*e*) While English Readers abound, we should have some Scottish and Irish sections inserted.
   - (*f*) A Canadian series needs to be prepared.

B. The Geography course requires:

1. A text-book containing a summary, or *résumé*, of the whole treatment of the subject. This should be as complete as a convenient size permits. While we reaffirm every point in last year's report, still, we see that it is impossible to put all the necessary Geography within the bounds of one book small enough for a pupil to carry.

A book should be:

- (*a*) Comprehensive—treat of commercial, political, and physical geography, with a little geology and astronomy.
- (*b*) *Well* illustrated—profusely so.
- (*c*) Supplied with good maps (in an atlas). Few details on maps of continents—sectional maps to provide the details.
- (*d*) Written in attractive style.

(*e*) Have an appendix—easily altered—containing statistics. This should be kept strictly up-to-date—also the date of the edition should be clearly printed on the front corner as "Edition of 1909," etc.

(*f*) The "questions" and "suggestions" belong to the teachers' book.

(*g*) Of a size in keeping with other books. The old-fashioned, large Geography covers the whole desk and leaves no room to work on.

2. Geography readers—much that was said regarding History readers applies here. They should be:

(*a*) Numerous—one for each pupil.

(*b*) Several—for each grade and be well graded. The curriculum needs altering now so that a sensible set can be chosen.

(*c*) No British or American book should be selected that will do violence to Canadian spirit or Canadian ideals.

All of which is respectfully submitted,

J. W. Plewes,
Chairman.

Toronto, April 13th, 1909.

Puplic School Department.

Resolutions, 1909.

For the consideration of the Honourable the Minister of Education, his Department, and the teachers of the Province; and for discussion at the County Teachers' Associations.

Let each Association appoint a committee of three who live near each other, to consult together and make a written report upon each group, as suggested in Resolution 27, and send the reports and the results of the discussions to the Secretary of the Public School Department.

Chas G. Fraser,
10 Sylvan Ave., Toronto.

I. A NEW CURRICULUM.

1. That the work in each of the eight grades of the Public Schools be clearly defined; and that text books should then be prepared, or selected, on the basis of the work as thus defined, not in the opposite order.

2. Whereas the Joint Committee of the Inspectors and the Public School Departments of the O. E. A. has given much time and thought to the production of a suggestive syllabus of work;

And whereas, through the courtesy and assistance of the Minister of Education, Hon. Dr. Pyne, we have had the result of the findings of this Committee placed in our hands in printed form. with a request for criticism and suggested improvement;

And whereas, in the opinion of the Public School Department of the O. E. A., it is very desirable that the Public School Teachers of the Province should have the opportunity of putting this syllabus to a practical test in their school rooms;

Therefore, we respectfully request the Education Department to take no action in issuing a syllabus of work for Public Schools until after next year's meeting of this Association;

And we authorize the Executive of the Public School Department of the O. E. A., to give this subject a prominent place on next year's programme.

Therefore the Executive of the Public School Department of the O. E. A. invites the teachers of the Province, individually, or in groups, or associations, to consider, test, and criticize the suggested syllabus as to the subjects included, the amount and nature of the matter suggested, the order in which this matter is arranged, and even the wording that is employed, and to send any suggestions or criticisms to Chas. G. Fraser, 10 Sylvan Ave., Toronto, Secretary, to be used by committees which are being appointed by the Executive—one for each subject in the suggested syllabus.

II. NEW PUBLIC SCHOOL TEXT BOOKS.

3. That when the Minister of Education contemplates the authorization of a new text book on any subject, he should give at least one year's notice of his intention thereof, that those, who wish, may submit a book—in type-written form if necessary; and that Public School teachers be consulted in the preparation and selection of all Public School text books.

Composition and Grammar.

4. That two text books in Composition be adopted, one suitable for Junior classes, and one for Senior classes, as well as a separate textbook in Grammar.

The New Readers.

5. *(a)* That the new series of Readers for Ontario should consist of eight books—one book for each grade—each containing matter sufficient for one year.

(b) That in the matter of word recognition, the books be based on a logical use of phonics; and being for the purpose of teaching reading, the matter should be so arranged as to provide for a proper development of, and practice in, pronunciation, articulation, voice training, and vocal expression.

(c) That, keeping in view the principles lad down in clause *(b)*, the matter of the readers be selected in accordance with the spirit of civilization—adjusting the child to his world of to-day, at each stage of his evolution—his progress towards the culture of the race—giving due prominence to both nature and human nature, including the ideals and virtues of humanity, not in a moralizing manner, but in story and incident; that each selection should be a literary whole, such as the child of the grade can appreciate, not forgetting that often the heart can apprehend what the mind cannot explain; and that each reader of the series bear the impress of our national spirit.

(d) That the paper, printing, binding and illustrations be of superior quality, briefly, "art-literature" readers, containing many reproductions of the masterpieces.

A New Speller.

6. That the present Practical Speller on account of its method of arrangement and the large number of unfamiliar words selected —words that are seldom used—is unsuited to the use of Public Schools, and that it should be replaced by a more suitable text having the following features:

(a) The including of lists of words in ordinary use and those used in the teaching of the work of the present Public School curriculum; and the omission of all words that are seldom used or which are of a highly technical nature.

(*b*) The including of words of similar meaning and those of similar sound which are in common use and giving the peculiar force or meaning of each.

(*c*) The placing of the lists of "Difficult Words for Review" at the end of the book.

(*d*) The arranging of the words of each group in columns according to their difficulty so that the work can easily be assigned to each class, giving each the attainable and the reasonable, without the teacher having to choose, and the pupils, to mark the words, as is necesesary with the arrangement of the present book.

(*e*) The including of the prefixes, affixes, and roots of the present work.

(*f*) Ten or twelve blank pages at the end of the book for pupil's mistakes.

III. Public School Leaving Examination.

6. (*a*) That a Provincial Examination be held at the end of the Eighth Grade of the Public School Course and students who pass this Examination shall be entitled to attend any High School, Collegiate Institute, or Continuation School in the Province.

(*b*) That pupils be tested on the following subjects of the course—Reading, Writing, Spelling, Arithmetic, Grammar, Composition, Literature and Geography;

(*c*) That the result of this examination be considered in connection with the Teacher's estimate of the standing of the pupil in each subject.

(*d*) That the standard required for passing be 40 per cent. on each subject and 60 per cent. on the total;

(*e*) That at least one-half of the marks in Literature be assigned on prescribed work; and at least one-fourth of the marks in Arithmetic be on mechanical work in the four simple rules.

(*f*) That a detailed curriculum of the work in these subjects be drawn up for the Province, and that local authorities be allowed the privilege of extending this course by including certain optional subjects in accordance with a curriculum which shall be supplied.

(*g*) That the papers for this examination be set by a Provincial Board of Examiners appointed by the Education Department and consisting of three members— one representative from the Public Schools who is directly associated with the work of the Eighth

Grade, one representative from the High Schools, and one Public School Inspector. These shall meet and consult together on the papers, and be individually, and collectively, responsible for each and every paper set.

(*h*) That there be a Local Board of Examiners for each inspectorate, to carry out the work of the Examination. It shall be composed of representatives of the three educational interests connected with such work but Public School representatives shall predominate.

(*i*) That these Local Boards of Examiners be not invested with such unlimited powers as the Local Entrance Boards at present have, but that all material deviation from this plan receive the sanction of the Education Department.

IV. TEACHERS' CERTIFICATES.

8. That no certificate to teach, except as an assistant, be granted to any person under twenty-one years of age.

9. That, as we are of the opinion that there is only an occasional vacancy in the Public Schools of Ontario for which a legally-qualified teacher cannot be obtained, providing an adequate salary is offered, no permit to teach should be granted, except in *absolutely unavoidable cases.*

10. That the Minister of Education be respectfully requested to replace Arithmetic and Grammar on the list of subjects of Teachers' Departmental Examinations, in July, believing it to be in the best interests of Education.

11. That the matter of certificate should not be the only point to be considered in deciding what teachers shall be qualified to take the position of teacher or principal, of any Public School.

12. That the requirements for a Public School Inspector's certificate shall be:

(*a*) The holding of a first-class Professional Certificate of qualification;

(*b*) An experience of ten years' successful teaching in Public Schools, covering all grades of Public School work;

(*c*) The passing of a pedagogical examination controlled by the Department of Education, or the securing of a Degree in Pedagogy in any recognized Canadian University.

13. That the question of the qualifications for a Public School Inspector's Certificate be submitted to the Advisory Council for consideration and advice.

V. The Advisory Council.

14. That the number of Public School Representatives on the Advisory Council be increased from four to seven, and that the Province be divided into seven electoral districts, each of which shall elect one representative to the Council.

15. That members of the Advisory Council should have the power to introduce the discussion of any educational question

16. That the Minister of Education be asked to publish a Hand Book or Directory, of the graded schools of the Province, showing the names of the schools, the number of rooms in each, the name of the Principal and the salaries paid to him and his staff.

VI. Public School Regulations.

17. That the Kindergarten work should be a part of the Public School course in every school where practicable, and to this end special inducements should be offered by the Education Department by way of grants (1) on the initial cost of establishment and (2) on maintenance.

18. That some method of applying the principles of the Kindergarten to every primary department of the Public Schools should be devised.

19. That where Manual Training and Domestic Science are introduced into a school, attendance at these classes shall be made compulsory.

20. That the interest of Education in the Rural Schools would be best served by having Boards of Five Trustees to manage the school affairs of each township.

21. That the holidays in Rural Schools should correspond with those in Urban Schools. That it be made optional with Rural School Boards to make the holidays in their section correspond with those in Urban Schools.

22. That section 91 of the 1904 Regulations be so amended as not to require the holding of a meeting of the teachers' Institute on a Saturday.

23. That the Education Department be requested to make the school year end on the 30th June and to have the annual reports of the pupils' attendance made out accordingly.

24. That a special committee consisting of Messrs. Ward, Fraser, Cole, Kelly, and McJanet, with power to add to their number, be appointed, to consider the question of a compulsory Attendance Act, and with power to take action.

VII. SUPERANNUATION OF TEACHERS.

25. That the Government be asked to provide and support a system of superannuation for the teachers of the Province, and that any teacher who has taught twelve years or more in the Province shall be allowed to become a contributor to the present superannuation scheme and come within the scope of its benefits by a present payment of the present worth of the annual payments covering his term of service—this privilege to be extended for two years—and it shall be lawful for a school board to make such payment for a teacher in its service.

VIII. THE LOCAL ASSOCIATIONS.

26. That we thank the Local Associations which, in the past, have contributed to the funds of this Department of the O. E. A., to carry on the campaign inaugurated, and request that each Association in the Province be urged to contribute at least two dollars this year.

27. That each and every Teachers' Association in the Province —both County Institutes and Local Associations—be asked to appoint a committee of three teachers, who live near enough to each other to consult frequently, for each group of the resolutions of this Department and prepare a written report—favorable or unfavorable—regarding each resolution, and include the objections which could be raised against each; that these be forwarded, without delay, to the Secretary of this Department that he may unify them and submit the arguments to the Minister of Education as requested by the Hon. Dr. Pyne.

IX. THE PUBLIC PRESS.

28. That whereas the publication of supplements containing comic, colored cuts is being introduced into our Canadian papers,

and believing that the tone of these pictures is lowering, and sometimes debasing, giving wrong views of life, and teaching disrespect for age, for parents and for those in authority, and believing that they are calculated to destroy, in the youth of our land, the taste for all that is noble, beautiful, and truly artistic, we, the members of the Public School Department of the Ontario Educational Association, desire to express our strong disapproval of the publication of such matter in our Canadian press.

REPORT OF THE COMMITTEE ON THE PROPER RECOGNITION OF URBAN SCHOOLS IN THE LEGISLATIVE GRANTS.

Certified
CHAS G. FRASER,
Secretary B. Dept.

The Special Committee appointed to prepare a memo setting forth the claims of Urban Schools to increased grants were unable to hold a meeting during the year on account of the wide separation of its members, and other difficulties. However, by correspondence, and a meeting of a section of the Committee, some progress has been made.

Statistics bearing on the matter and useful for comparison have been made and an agreement has been reached as to the minimum proportion of the total grant to Public Schools which should be available for Urban Schools. It will be understood that while the Rural School Grant is rising towards a half-million, the scheme on which moneys are paid to Rural Schools makes possible and probable, double the present total. In the opinion of the Committee the total earnable under the present Rural School scheme should be fixed, say at $450,000 or $500,000, and some such scheme should be adopted for Urban Schools, making possible the earning of a fair equivalent, by these schools, of the amount earnable by the Rural Schools. The Committee is of the opinion, (1) That several elements should be combined to obtain the proportionate earnable grants by the Rural and the Urban Schools.

(2) That the old method of apportionment of grants on average attendance, was unfair to the smaller Rural Schools, and encouraged crowding in the graded schools.

(3) That grants based on population, (the method of apportionment that superseded the average basis, and which still obtains

as among Urban Schools,) is also an unfair method, discriminating especially against the smaller urban municipalities.

In the various Provinces and many of the States of the American Union, grants are based on several elements, such as cost of education to a community, and ability to pay, number of pupils for whom provision must be made, the taxables, teacher's experience and qualification, and salary.

The following statistics are submitted:

	Urban, Ont.	Rural, Ont.
Population, 1907	1,154,723	1,054,640
Assessment	$553,906,441	$595,074,636
Average per capita assessment	$480	$564

Population of towns and villages	499,957
Assessment of towns and villages (30% of total urban)	$178,118,120
Average assessment of towns and villages	$356
Average assessment of all urban centres, but six largest	$381
Or with 66% of the rural population, these show ... of rural assessment.	42½%

The average per capita assessment of this part of urban Ontario, (all but six cities) is 70 per cent. of rural per capita assessment.

	Urban.	Rural.
Registered attendance	215,223	247,927
Average attendance	141,090	131,771

Urban registered attendance is 86 per cent. of rural registered attendance.

Urban average attendance is 107 per cent. of rural average attendance.

	Urban.	Rural.
Number of teachers	4,022	6,013
Salary bill	$1,867,200	$2,013,336
Expenditure	3,417,477	2,895,627

			Proportion.		
	Urban.	Rural.	Urban.		Rural.
Total number of teachers	4,022	6,013	67	to	100
Average attendance	141,090	131,771	107	to	100
Population	1,154,723	1,054,640	109½	to	100
Total expenditure	$ 3,417,477	$ 2,985,627	115	to	100
Assessment	$553,906,441	$595,074,636	100	to	107½

By the other method of average attendance Urban Schools should receive 107 per cent. of rural grant. By the population basis that superseded the former, Urban Schools should receive 109½ per cent. of Rural grant.

If grants were based on number of teachers, (practically number of schools) Urban Schools would receive only 67 per cent. of Rural grant.

If grants were based on ability to pay, then by inverse ratio of assessment, Urban grant should be 107½ per cent. of Rural. Comparing our Province with other Provinces of the Dominion, and with States of the Union to the south, showed that our grants to Primary Schools, notwithstanding the greatly increased grants to Rural Schools, were still relatively very low. We are in fact about foot of the list.

	Per Registered Pupil.	Per Teacher.
Nova Scotia's grants averaged	$ 4 00	$150 00
P. E. Island's grants averaged	6 30	220 00
New Brunswick's grants averaged	2 80	100 00
Manitoba's grants averaged	3 35	93 00
Saskatchewan's grants averaged	6 07	185 00
British Columbia's grants averaged ...	12 40	515 00

Quebec's grants are about the same as grants were in Ontario two years ago.

Ontario:

Cities	0 77	37 72
Towns	0 52	28 07
Villages	0 44	22 72
Rural	2 05	73 00
Pennsylvania's grants averaged	7 40	2 70

Assuming that the following points should be conjointly and equally considered——for the Urban Schools of the Province, viz., (1) number of paid teachers, (2) average attendance, (3) population, (4) total expenditure, (5) assessments,—the average is 97 per cent. of the rural average; with the statistics of 1908 the averages would be about equal.

The following figures show comparisons by counties between the rural and urban municipalities on assessments and taxation. They indicate that the large proportion of school grants now go to the wealthier rural municipalities.

—	Rural Taxes Per hd.	Mills on $	Ass'nt Per hd	Urban Taxes Per hd.	Mills on $	Ass'nt Per hd.	Cities Taxes Per hd.	Mills on $	Ass'nt Per hd.
Algoma	$5.40	21.1	$255.00	9.48	19.8	$498.00	. . ..	... .	....
Brant	6.49	8.6	757.00	6.95	19.0	500.00	$12.37	23.6	....
Bruce	5.65	8.6	660.00	7.13	25.2	280.00	. ...	.....	....
Carleton.......	5.88	12.6	438.00	6.15	26.5	232.00	14.13	23.9	$577.00
Dufferin.......	6.56	9.5	700.00	8.42	24.2	350.00	....	.....	....
Dundas........	8.17	18.8	435.00	9.10	26.2	347.00	....	.....	....
Durham	6.57	10.7	614.00	10.43	25.8	404.00	....	.....	....
Elgin..........	9.23	12.7	724.00	9.52	28.5	331.00	11.21	25.4	442.00
Essex	8.54	15.7	546.00	7.61	25.0	305.00	12.36	23.3	532 00
Frontenac	5.55	18.9	300.00	9.26	32.5	200 00	9 33	21.9	427.00
Glengarry	5.22	12.0	435.00	5.43	23.9	224.00	....	.....	....
Grenville	5.82	14.0	414.00	6.56	19.3	340.00	t 9 63	25.1	....
Grey	5.81	12.3	474.00	9.82	24 7	398.00	....	.....	....
Haldimand	6.58	11.2	590.00	6.82	21.2	321.00	....	.....	....
Haliburton	4.02	28.7	140 00	......	.....	....	....	.....	....
Halton	6.45	8.9	727.00	7.23	22.5	320.00	....	.....	....
Hastings.......	5.08	14.1	361.00	7.19	19.9	362.00	11.80	27.9	383.00
Huron	7.15	8.0	900.00	8.29	23.4	354.00	....	.....	....
Kent..........	10.43	15.1	700.00	7.55	28.2	268.00	17.89	36.4	491.00
Lambton	9.50	13.9	700.00	9.95	26.1	372.00	.....	.....	....
Lanark	5.69	11.8	486.00	8.04	25.7	310.00	....	.....	....
Leeds	6.53	11.8	554.00	7.48	24.3	308.00	t 11.31	27.4	400.00
Lennox & Add.	6.36	13.9	451.00	9.45	26.0	362.00	....	.....	....
Lincoln.......	7.25	11.7	620.00	8.70	24.4	357.00	....	.....	....
Manitoulin	3.66	16.4	223.00	4.08	22.4	187.00	....	.....	....
Middlesex	8.28	9 5	872 00	7.71	23.2	332 00	....	.....	472.00
Muskoka	4 16	19 5	213 00	7.16	37 2	256.00	....	.....	....
Nipissing	5.67	19.0	308.00	7.67	23.2	330.00	....	.....	....
Norfolk	5.80	10.8	536 00	7.23	22.2	325.00	....	.....	....
North'd	5.61	11.5	490.00	7.49	22.0	343.00	....	.....	....
Ontario	6.30	9.4	670.00	8.15	25.1	324.00	....	.....	....
Oxford	7.86	8.7	900.00	9.89	24.5	400.00	8.82	20.7	402.00
Parry Sound...	3.81	17.7	230.00	7.49	25.1	300.00	....	.....	....
Peel...........	7.08	9 7	738.00	8.93	22.2	400.00	....	.....	....
Perth..........	8.26	8.4	986.00	8.94	22.9	388.00	11.26	25.6	432.00
Peterborough ..	5.67	12.6	450.00	5.42	20.2	268.00	8.53	19.8	442.00
Prescott	4.55	12.8	357.00	4.17	21.0	200.00	....	.....	....
Pr. Edward....	6.70	12.8	523 00	7.16	18.6	385.00	....	.....	....
Rainy River ...	8.03	19.6	401.00	12.04	24.3	500.00	....	.....	....
Renfrew...... .	3.41	10.5	323.00	7.94	21.8	364.00	....	.....	....
Russell	5.22	14.3	370.00	3.31	42.2	78.00	....	.....	....
Simcoe	5.27	13.1	404.00	8.53	24.1	355.00	....	.....	....
Stormont	6.22	17.3	360.00	8.34	26.1	320.00	....	.....	....
Th. Bay	12.05	19.8	607.00	......	.....	....	9.70	19.1	490.00
Victoria........	6.97	11.7	600.00	9.26	28.6	325 00	....	.....	....
Waterloo	6.18	8.5	720.00	9.16	21.7	422.00	..... .	.....	....
Welland	6.04	12.3	402.00	9.30	21.4	436.00	12.09	27.4	440.00
Wellington.....	6.67	8.0	840.00	7.90	24.5	322.00	6.87	17.3	400.00
Wentworth	5.71	9.2	623 09	7.39	23.4	316.00	11.33	21.2	533.00
York	7.05	12.3	574.00	8.30	24.2	343.00	14.94	22.0	667.00

For the Province

Rural taxes per head $6.52 rate on $, 11.5 mills.
Urban " " " 8.41 " " $, 23.6 "
Cities " " " 12.99 " " $, 22.6 "

The Committee is of the opinion that there should be stated earnable grants fixed for rural and urban municipalities that these should be equal in amount, that the amounts should be $500,000 for each; that a scheme for distribution of urban grants should be adopted on somewhat similar basis to the scheme for Rural Schools, the dominant principle of which scheme is a percentage of teacher's salary, thus reaching the school through the main, necessary expenditure.

T. A. Reid,
Chairman.

MINUTES OF THE KINDERGARTEN DEPARTMENT.

Tuesday, April 13th, 1909.

The Kindergarten Department of the Ontario Educational Association met in the Ladies Reading Room of the Toronto University at 9.30, the President, Miss Clara Brenton, of London, in the chair.

After the singing of the Kindergarten Hymn, the minutes of last year were read and confirmed. Miss A. S. Davidson was appointed press reporter.

The President's address, which was replete with enthusiasm and inspiration, was then given. This was followed by a review of Gabriel Compayre's book, "The Intellectual and Moral Development of the Child," by the Rev. W. H. Hincks. This paper was greatly enjoyed by the members, and a short discussion followed, Mrs. Hughes, the Misses Baker and Johnson taking part. A hearty vote of thanks was tendered the Rev. Mr. Hincks. Miss Lillian Harding, of Toronto, then presented a synopsis of a course of lectures recently given there, by Miss Sherwood, of Chicago, on "The Value of Stories in Educational Work." In the course of the review, Miss Harding told two of the stories mentioned, in her own inimitable manner.

Afternoon Session.

The members of the Department adjourned for an hour to meet with the Manual Arts Section, where a paper on "Connecting the Kindergarten and Manual Training," was read by Mr. E. Faw, On returning to the Kindergarten Department, Miss Jean Laidlaw, Supervisor of Kindergartens, London, Ont., gave her impressions of some British schools recently visited. An invitation to visit the Rosedale school was received, and a cordial vote of thanks was passed to the staff of the school and Art League.

The following delegates to the International Kindergarten Union Meeting in Buffalo on the 27th to 30th of April were appointed. Mrs. Hughes, Miss Louise Currie, of Toronto, and Miss Jean Reid, of Brantford. The session adjourned at 4.30 p.m.

WEDNESDAY, April 13th, 1999.

The meeting opened with the reading of minutes of sessions of previous day. The Treasurer's report was then presented, showing a balance on hand of $52.73.

A motion was passed, that Miss Armstrong, of Burmah, be requested to give a short address on her kindergarten work among the Burmese children, on Thursday morning, at 11.30.

Mr. T. A. Reid, of Owen Sound, gave a most interesting paper, "In how far is it Possible and Practical to Extend the Kindergarten System to all Our Public Schools?" This was followed by a most valuable talk on "The Influence of Good Pictures," by Miss Ida Hillman, of Chatham. The morning session was concluded by an address from Mr. W. Houston, on "The Educational Value of Rhythm."

THURSDAY, April 15th, 1909.

The first item on the programme for this morning was "The Report of Special Committee on Resolutions of Last Year." Mrs. Hughes, convener of Committee, reported that for various reasons the Committee had been unable to meet, and therefore there was no report to present, but suggested that the same Committee should still stand and act. The following motion was passed, "That a committee be appointed to present a memorial to the Government *re* "The Appointment of a Kindergarten Inspector for the Province." The following committee were appointed: The Misses McIntyre and Heakes, of Toronto; Miss Baker, of Ottawa, and Miss Grace Johnson, of Stratford. The election of officers then took place. President, Mrs. Ada Baker, of the Ottawa Normal School; Director, Miss Clara Brenton, London; Secretary-Treasurer, Miss H. E.

Heakes, Toronto. A most interesting discussion was then conducted by the Misses Baker and Johnson on "The Path of Progress for the Future Work of Every Kindergartner."

The discussion was participated in by the following ladies: Mrs. Hughes, Miss M. McIntyre, of Toronto Normal School; Misses Dent, Westman, Milne, McIlwain, Grant, Hutson, Brenton, Rayfield, Patterson, Convey, Ahner. Miss K. Armstrong, of Burmah, then gave a brief but very interesting account of her work in establishing Kindergartens in Burmah. The President voiced the appreciation of the Kindergarten Department of Miss Armstrong and her work.

The meeting adjourned at 12.30.

Hannah E. Heakes,
Secretary-Treasurer.

MINUTES OF THE TRAINING DEPARTMENT.

Tuesday, April 13th, 1909.

The Training Department of the Ontario Educational Association met at 10.20 a.m., in room 33, of University of Toronto.

The opening exercises were conducted by Mr. S. J. Keys, Chairman of the Department, after which he delivered a most thoughtful address on "Dynamic Education."

Discussion followed by Messrs. Stevenson, Dearness, and Gibson.

A Printing Committee was then appointed, composed of Messrs. Dearness, Park, and Gibson.

"History in the Public Schools," was the subject of a very instructive paper read by Mr. A. Stevenson, but prepared by Mr. S. J. Radcliffe, London.

Discussion was deferred owing to the absence of the writer.

The meeting then adjourned.

Wednesday, April 14th, 1909.

The Department met at 9.30 a.m. The Chairman conducted the opening exercises. The minutes of previous meeting were read and confirmed.

Principal Scott, of Toronto Normal School, led in a discussion on the advisability of continuing the Training Department of the Ontario Educational Association.

The members were unanimously in favor of continuing the Department.

The election of officers for the ensuing year then took place, resulting as follows:

Chairman............... S. J. Radcliffe.
Secretary-Treasurer.. Prof. H. T. Coleman, Toronto University.
Director................. D. D. Moshier.

"Some Unsolved Problems in Education," was the subject of a very practical paper read by Prof. O. J. Stevenson.

Immediately after this paper Dr. S. A. Morgan discussed the following topic: "The Content of Education."

A most interesting discussion followed on both these papers by: Prof. Stevenson, Prof. Coleman, Dr. Silcox, Mr. Pendergast, D. D. Moshier, Prof. Lavelle, W. Scott, and S. J. Radcliffe.

Meeting adjourned.

THURSDAY, April 15th, 1909.

The Department met at 9.00 a.m.

The Chairman conducted the opening exercises. The minutes of last meeting were read and confirmed.

Mr. J. R. Seavey, of Hamilton, then read a very instructive paper on "Why we Teach Art in the Public Schools."

An interesting discussion followed, after which a resolution was passed welcoming to the Training Department the Model School Masters.

The Convention of 1909 was then closed.

WM. WILSON,
Secretary.

MINUTES OF THE INSPECTORS' DEPARTMENT.

TUESDAY, April 13th, 1909.

This Department met in Room 65 of University of Toronto, and opened its first session at 10.45 a.m., with prayer by Mr. J. H. Knight, Mr. D. Robb, Chairman, presiding.

The minutes for 1908 were on motion taken as read.

The following appointments were made for the present meeting: Press Secretary, C. W. Mulloy; Auditors, J. Coyle Brown, Dr. W. E. Tilley; Committee on Resolutions, J. Coyle Brown, G. K. Mills, W. I. Chisholm.

Notices of motion were given as follows: C. W. Mulloy, regarding "Graduation Diplomas for Public Schools."

F. L. Michell, respecting a blank book for use of the Secretary-Treasurer in rural sections.

Dr. W. E. Tilley, *re* a committee to revise Departmental report forms.

Mr. Chisholm then gave a brief report of the work of the Advisory Council during the year, and the part taken in it by the Inspectors' representatives.

On motion of W. McIntosh and J. E. Tom, the hearty thanks of the Department were tendered Mr. Colles and Mr. Chisholm for the excellent service they have rendered as representatives on the Advisory Council.

On motion of W. E. Tilley, the following were named a committee to report on the advisability or otherwise, of taking action with a view to selecting candidates for the coming Advisory Council elections: T. A. Craig, W. J. Summerby, G. K. Mills, Wm. Irwin, W. I. Chisholm.

AFTERNOON SESSION.

The afternoon session opened at 2.00 p.m., with Mr. Chisholm in the chair until the arrival of Mr. Robb, a few minutes later.

"Departmental Aids to Public School Teachers," was the title of a paper read by G. K. Mills, who advocated some official medium of communication between the Education Department and the teachers. He closed with the following motion, seconded by Mr.

Chisholm: "That the Inspectors of the Province urge upon the Education Department the need of some official organ of communication for all workers in the cause of education, believing that the best work can be done only when every one is acquainted with the current movements in educational life, and is kept informed of the best that is produced in its various departments."

After discussion and favorable comment on the paper by Messrs. McIntosh, Stevens, Fotheringham, and others, the motion was carried.

On motion of Mr. Fotheringham and Dr. Tilley, Messrs. Mills and Chisholm were appointed a committee to present in person, and press upon the attention of the Education Department, the above and all other resolutions adopted at this meeting and requiring to be forwarded to the Education Department.

Mr. Robb then delivered the Chairman's address, in which he criticised adversely the principle of "Approved Schools," and the substitution of teachers' recommendations for examinations.

By a unanimous vote Mr. Robb was asked to prepare the substance of his address for publication in the Proceedings.

The subject was further discussed to the same purport by Messrs. McLaughlin, Maxwell, Knight, and Edwards.

At 3.30 p.m. the members of the Hygiene Section joined the Inspectors to discuss Medical Inspection.

Mr. C. B. Edwards presented the report of the Committee appointed last year. Its adoption was moved by Mr. Edwards and seconded by Dr. Oldright in a brief address.

An able and interesting paper on the principles underlying Medical Inspection of Schools was read by Dr. McPhedran, who urged the importance of such inspection in order, (1) that contagious disease may be stamped out; (2) that the defects of children may be studied and their physical condition improved; and, (3) that anthropometric records may be kept showing the progress of the development of individual children and of the race.

Dr. Roberts followed with a paper on the "Relation of the Nurse and the Teacher to Medical Inspection."

It was moved by Dr. McDiarmid and W. F. Chapman that a vote of thanks be tendered to Dr. McPhedran and Dr. Roberts, and that they be requested to permit their papers to be published in the Proceedings. Carried.

WEDNESDAY, April 14th, 1909.

The session opened at 9.40 a.m., with Mr. Robb in the chair. The following officers were elected for 1909:

Chairman..........................	T. W. Standing.
Secretary..........................	C. B. Edwards.
Director............................	H. H. Burgess.

Moved by Dr. Tilley and C. B. Edwards, "That a committee be appointed to suggest or prepare more suitable forms for trustees' and other reports." Carried.

The following committee was named in this connection: Dr. Tilley, N. W. Campbell, C. B. Edwards, R. Lees, G. K. Mills.

Moved by F. L. Michell, "That the Minister of Education be requested to have a Record Book, for entering the receipts and expenditures of each rural school section, provided and supplied to every Secretary-Treasurer." Carried.

A paper on "Exemption from Examinations on the Recommendations of Teachers," was then read by Mr. Arthur Brown. Mr. Stevens followed, and the discussion was continued by other speakers, nearly all being opposed to the principle of exemption from examinations.

Moved by Dr. Waugh, seconded by Dr. Tilley, "That all Public School subjects—at least those leading to High School courses—should be subjects of examination for pupils desiring admission to the High School." Carried.

Mr. Chisholm then read his paper on "The Promotion of Public School Pupils," arguing that promotions can be most satisfactorily made through the co-operation of teacher and inspector without uniform written examinations for the whole inspectorate.

The discussion was continued by Mr. D. Fotheringham, who outlined the method of examination pursued in South York, and defended uniform examinations. Mr. J. H. Knight, A. Brown, and others spoke in favor of examinations.

AFTERNOON SESSION.

A joint meeting with the Hygiene and Public School Departments was held in the room of the latter to discuss the report of a Committee on a Compulsory Attendance Act. Mr. H. Ward reported the results of the committee's work.

Mr. N. W. Campbell, representing the Inspectors' Department, gave an interesting and able address, pointing out the need for such legislation, and discussing briefly the chief features that should characterize a satisfactory Truancy Act.

The meeting was addressed also by Dr. Helen McMurchy, and a general discussion followed.

THURSDAY, April 15th, 1909.

The Department resumed at 9.45 a.m.

The committee appointed to consider Advisory Council elections reported recommending that no action be taken. On motion of Messrs. Deacon and Marshall the report was adopted.

Mr. H. H. Burgess then read a paper on "The Fifth Class in Public Schools."

The discussion was continued by J. Elgin Tom in a vigorous address, in which he pointed out the good work now being done in Fifth Classes and the desirability of Departmental recognition being given for such work irrespective of the money value of the equipment provided.

The paper was discussed also by Messrs. Cowley, J. J. Craig, and Stevens. On motion of J. E. Tom and J. H. Smith (Chatham), a committee consisting of Messrs. Mulloy, Stevens, J. H. Smith, N. W. Campbell, and J. E. Tom, was appointed to prepare a resolution on the course of study, examinations, and grants to Fifth Classes in Public Schools, and report at the afternoon session.

At the close of Mr. Burgess' paper Dr. De Garmo, of Cornell University, who was present, at the request of the chairman made a brief address.

It was moved by C. W. Mulloy, seconded by J. E. Tom, "That the Education Department be requested to prepare a suitable Graduation Diploma for the pupils who pass an examination upon the subjects of the Fifth Class work of the Public School course. Carried.

AFTERNOON SESSION.

The report of the Committee on the Course of Study Limits, together with the syllabus prepared by that committee, was presented by G. K. Mills in the absence of the Chairman, Mr. W. F. Chapman, who was presiding in the Hygiene Section at that time.

On motion of Messrs. Standing and Thompson a hearty vote of thanks was accorded to the members of the committee for their laborious and faithful services in preparing the syllabus.

Moved by S. Huff and W. E. Tilley, "That the report of the committee, as embodied in the 'Proposed Detailed Syllabus,' be received, but that the consideration of its adoption be postponed until our next meeting, a year hence, and that in the meantime the Education Department be requested to print sufficient copies of the Syllabus to have one placed in each school for trial during the year." Carried.

Mr. Mulloy presented a report of the Committee on Fifth Classes, but on motion of Messrs. Chisholm and Craig this was referred back for further consideration and the committee was asked to report again next year.

The Auditors' report, read by J. Coyle Brown, showed a balance on hand of $76.94. On motion of Messrs. Brown and Chisholm the report was adopted.

On motion by J. C. Brown and P. J. Thompson the following were asked to permit their papers to be published in the Proceedings of this Department: Messrs. G. K. Mills, D. Robb, A. Brown, W. I. Chisholm, H. H. Burgess, and N. W. Campbell.

The meeting then adjourned.

MINUTES OF TRUSTEES' DEPARTMENT.

FIRST SESSION.

TUESDAY, April 13th, 1909.

The twenty-third annual convention of the Public and High School Trustees of Ontario began at University College, Toronto, at 1 p.m.

After the registration of delegates, the President, Mr. R. McKnight, of Owen Sound, took the chair. Rev. Mr. Bell offered prayer.

Upon motion by Mr. J. Staples, of Lindsay, seconded by Mr. Wright, of St. Thomas, Messrs. Ramage, of Durham, Carey and Simpson, of Toronto, were appointed the Press Committee. Carried.

It was moved by Mr. Brown, of Meaford, seconded by Mr. Wright, of St. Thomas, "That Messrs. Staples, of Lindsay, and Rutherford, of Shelbourne, be the Auditors." Carried.

The appointing of delegates to wait on the Minister of Education was deferred until April 14th.

It was moved by Rev. Mr. Wilkins, seconded by Mr. F. Doggat, "That on page 31 of 1908 Proceedings the name "Staples" occurring on the second line from the bottom be erased and the name of Truman be inserted instead thereof, and that the printed minutes of this department, held 21st, 22nd and 23rd April, 1908, so amended be received and adopted, Carried.

No correspondence in the hands of the Secretary.

TREASURER'S REPORT.

The following report of the Treasurer was read, received and referred to the Auditors:

Receipts.

Balance	$ 3 55
Delegates	138 25
General Association	50 00
Due Treasurer	5 45
	$197 25

Expenditure.

Railways	$16 75
General Secretary	39 50
General Secretary	3 00
Secretary's Allowance	75 00
Printing	51 00
Postage Expenses	12 00
	$197 25

At 2.35 p.m.

The President, R. McKnight, Esq., read his address.

It is moved by Rev. Mr. Wilkins, seconded by Mr. G. Rutherford, "That Messrs. Wright, of St. Thomas; Todd, of Meaford;

Ramage, of Durham, and Rev. Mr. Bell be a committee to report on the President's address, and that the report be handed in on Wednesday morning." Carried.

At 3.00 p.m.

Mr. Truman read a paper on "Military Training in the Schools."

It was moved by Mr. R. J. Palmer and seconded by Mr. Jno. W. Staples, "That the Trustees' Section of the Ontario Educational Association approves of the sentiment expressed in Mr. Truman's paper opposing the introduction of military training in any form into Public Schools, and disapproves of the alarming efforts being made by many public men to introduce into this necessarily peaceful country an European system leading to conscription.

Messrs. J. J. Morrison, of Arthur; B. J. Palmer, New Durham; Mr. Douglass, Toronto; J. A. Best, Whitfield; J. W. Staples, Bobcaygeon; Mr. Rutherford, Shelbourne; Mr. Doggatt, St. Thomas; Mr. Todd, Meaford; Mr. Brown, Meaford, spoke in reference to the resolution and the contents of Mr. Truman's paper, alluding to the advantages and disadvantages to be gained by the teaching of military drill in our public schools.

Following amendment was moved by Mr. J. J. Morrison, of Arthur, and seconded by Mr. Douglass:

Be it resolved "That while the meeting expresses its approval of physical exercises and drills to develop the energies and activities of the pupils, at the same time we trust that everything will be done to develop in their minds an unquenchable abhorrence at the spirit and methods of war.

Following amendment to the amendment was moved by Rev. Mr. Wilkins and seconded by Mr. Doggat, "That all the words after the first word 'that' in the amendment be deleted, and that the following be substituted, namely: The paper be received and a hearty vote of thanks be given to Mr. Truman for his able and exceedingly interesting treatment of the subject on which there is much diversity of opinion."

Following general motion was moved by Mr. Doggat and seconded by Mr. Huston, "That the discussion on the amendment and amendment to the amendment be deferred until 11.30 a.m., April 14th (following morning.) Carried.

Following notices of motion were presented.

1. By Mr. Huston, "That he will bring in a motion *re* the structure, heating, and ventilation of Public Schools be under Government supervision."

2. By Mr. W. S. Smith. That he will move, "That a committee be appointed to consider means to induce both the Dominion and Local Governments to aid substantially and adequately the furtherance of Technical Education and Manual Training."

3. By Mr. Rutherford. That he will move, "That whereas typewriting machines are a part of the equipment required in the High Schools, the delegates waiting on the Minister of Education request him to have them made a part of the equipment of Continuation Schools using such equipment."

At 4.30 Rev. W. T. Wilkins read a paper on "The desirability of holding evening classes and Night Schools."

It was moved by Mr. F. W. Wright, seconded by Mr. W. J. Henry, "That the thanks of this department be tendered Rev. Mr. Wilkins for the able paper read by him, and that the address be printed in our minutes." Carried.

Mr. Richardson spoke in reference to Manual Training asking for information from such Boards which have organized Manual Training classes.

4. Following notice of motion was given by Mr. Doggett, "That he will move that this association accept the request of Mr. Richardson, and that our Secretary be instructed to notify Boards of Education having Manual Training classes to forward to the above gentleman any information that they are able to give, and which they deem necessary."

The meeting adjourned to meet on Wednesday, 9 a.m.

WEDNESDAY, April 14th, 1909.

The meeting resumed work, President R. McKnight in the chair.

The minutes of previous session were read by the Secretary, and upon motion of, Mr. Doggett, seconded by Mr. Lumby, were approved and adopted as read.

Report of committee to whom was referred the President's address.

1. The subject chosen by the President is one of the most important that will come before the section of the Ontario Educational Association. As are our Public Schools, so will be our country, therefore, we desire the best possible efficiency here.

2. We heartily agree with the President in the place he gives to the three R's in laying the foundation of a practical education.

3. We admire the zeal and faithfulness of the great army of female teachers (7,275 in 1907, as against 859 males) and the splendid work they are doing. Yet we believe it is cause for great regret that changed conditions have compelled so many young men of ability to choose some other profession. In the rural schools, where most needed, the male teacher is almost unknown.

4. Your committee note with pleasure the increased interest taken in the work of the Association by the Trustees of our rural schools. We are all one people, working with one object in view, viz.: The best interests of our boys and girls. Our most valuable asset.

J. R. Bell,
Chairman of Committee.

It was moved by Rev. Mr. Bell, seconded by Mr. Ramage, "That the committee's report on the President's address be adopted." Carried.

The Auditors' report on Treasurer's statement:

We, your Auditors, beg to report that we have examined the Treasurer's statement of Receipts and Expenditures, and found the same correct. Balance due Treasurer, $5.45, all of which is respectfully submitted.

Jos. Staples.
G. Rutherford.

Moved by Mr. Staples, seconded by Mr. Rutherford, "That the committee's report be adopted. Carried.

Moved by Mr. Smith, seconded by Mr. Wright, "That Messrs. Murton, Henry, Laughton, Pequenat, Oliver, Elliot, the mover and seconder be appointed a committee to consider means to induce the Dominion and Provincial Governments to substantially and adequately aid in furthering Technical Education and Manual Training." Carried.

Mr. Doggett moved, seconded by Mr. Staples, "That notice of motion given by Mr. Doggett stands as a motion." Carried.

Election of officers by ballot.

Messrs. Todd and Rev. Mr. Wilkins were appointed scrutineers.

The election resulted as follows

Secretary-Treasurer..............F. W. Wright, St. Thomas.
Vice-President..................... Dr. White, Lindsay.
President........................... A. Werner, Elmira.

Moved by Mr. Huston, seconded by Mr. Lumby, "That Messrs. Anderson, Murton, and Laughton be the committee to nominate Directors." Carried.

Report of Advisory Council. In the absence of Mr. Dow, Mr. J. H. Laughton, one of the representatives from the Trustees' Department on the Advisory Council, gave a synopsis of the work done by the Council in the interests of Education.

Moved by Rev. Wilkins, seconded by Mr. Wright, "That the verbal report be received as interim report." Carried.

Moved by J. A. Morrison, seconded by B. J. Palmer, "That resolved that the motions passed last year by this department in regard to the enlargement of the Advisor Council and organization of County Trustee Associations be continued in future report." Carried.

At 10.45 Col. Farewell read a paper on "Material for County and Provincial History."

Moved by Dr. White, seconded by Mr. Allan, "That a hearty vote of thanks be tendered by the Trustees' Department of the Ontario Educational Association to Col. Farewell for his interesting paper, and that the paper be printed in our minutes"

At 11.25 Prof. Hutt, of the Ontario Agricultural College, Guelph, gave a very instructive and interesting lecture, illustrated by pictures thrown on canvas, showing the difference in beautifying school grounds.

The meeting then adjourned until 2.30 p.m.

WEDNESDAY, 2.30 p.m.

The session resumed work promptly at 2.30 p.m.

President R. McKnight in the chair.

The Secretary read the minutes of the morning session, which were declared confirmed by the President.

Moved by Mr. Rutherford, seconded by Mr. Hutson, "That whereas typewriting machines do now form a part of the equipment of High Schools, the Trustee department of the Ontario Educational Association are of opinion they should be made such in the Continuation Schools." Carried.

Moved by Mr. Allan, seconded by Mr. White, "That we instruct the representatives of the Advisory Board, that in the opinion of the department the permissable age for attendance at our Public Schools should be raised to that of six years in any other but where Kindergarten classes are provided, and that this resolution be presented to the Minister by the representative chosen by this body to interview the Minister." Carried.

Mr. J. B. Dow, a member of the Advisory Council, being present at the afternoon session, addressed the meeting for a few minutes on the work carried on at the Council by the various representative bodies.

In speaking of ventilating systems, Mr. Leith, of Dufferin County, said in part, "That clear and plain descriptions of a ventilating system which could be adopted in any school should be provided. The present systems are not calculated for smaller schools, and likewise referred to the resolution passed in reference to children under seven years of age."

An invitation to visit Rosedale school was extended to the Trustees by Mr. J. L. Hughes, Toronto.

At 3 p.m. Mr. J. B. Dow read a paper on "Rhodes Scholarships."

Moved by Mr. Henry and seconded by Mr. White, "That the thanks of this meeting be tendered Mr. Dow for the able manner in which he has prepared and read to us his excellent paper on 'Rhodes Scholarships,' and that it be printed in our minutes." Carried.

By the consent of the meeting, Mr. Smith received permission to substitute the name of Mr. J. H. Gordon, of Stratford instead of Mr. Elliot, of Kingston.

At 3.20 p.m. Mr. Truman's paper, together with the various amendments, was considered.

The President received the instructions from the members present that all resolutions, amendments, and amendments to amendments prior to the afternoon session be rescinded and that the meeting accept the work to be undertaken during the afternoon proceedings.

Following motion was made by J. J. Morrison, of Arthur, and seconded by J. H. Laughton, of Parkhill, "That this Trustee Association will approve of a proviso looking to the introduction of physical training in public schools, but is opposed to compulsory military training in the same, and believe that this matter should be left optional with the Trustees of each section.

Following amendment to the motion was made: Moved by Mr. Lumby, seconded by Mr. Armitage, "That the Trustees' Section of the Ontario Educational Association is in favor of introduction of some form of physical and military drill and training in the schools of this Province wherever it may be practicable."

Mr. J. J. Morrison, as mover of the motion, spoke in favor of its adoption, and Mr. Laughton, as seconder, spoke in favor of the resolution, saying in part, "That the terms of its adoption was optional by Trustee Boards."

Mr. Henry spoke in favor of the amendment, referring to the compulsory clause in the motion.

Mr. Little likewise referred to the word compulsory, and dealing with the patriotic spirit of the Ontario people and their willingness to show the same whenever called upon to do so, at any time.

Mr. Todd, Meaford, said in part, "That the introduction of the training would bring beneficial results in discipline and obedience."

Mr. Werner, the Secretary, referred to the provisions now in force as provided by the statutes as to physical training and drill.

Rev. C. S. Eby, of Toronto, spoke strongly in favor of preventing as much as possible a spirit of militarism to creep into the minds of the children by a system of drills and exercises, and referred to the present condition on the continent, and that the emigrants to this country largely selected Canada owing to its not having any stringent military system. The spirit which should dominate and prevail should be such as would lead our children to view the question of peace instead of war.

Mr. Ramage said in part, "That the physical training would be a great benefit to our country providing it be conducted on a proper system."

John A. Morrison said in part, "That whereas the department having made provision in the regulations for physical training, etc., it was not necessary to take up the time in the discussion"

Rev. Mr. Wilkins said there was no need of the motion or amendment according to our present regulations.

Col Farewell said in part, "That the question should be considered along the line of the advantages to be gained."

It was moved by Mr. Murton, seconded by Mr. Wright, "That there being no issue really before the meeting the debate be adjourned until six months hence, and that the business of the programme be proceeded with." Carried."

Moved by Mr. Ramage, seconded by Mr. Bell, "That the paper read by Mr. Truman on Tuesday be published in the minutes of this Section without note or comment." Carried.

At 4.30 Dr. Hett read a paper on "The benefit derived from physical training and medical inspection."

Moved by Mr. Wright, seconded by Col. Farewell, "That the paper given by Dr. Hett be printed in our minutes, and that the thanks of this Association be tendered him for his able and valuable paper." Carried.

Nominating Committee report as follows: "That Messrs. A. Pequenat, Berlin; W. E. N. Sinclair, Oshawa; J. W. Westervelt, London; R. J. Oliver, Smith's Falls; R. E. Leseuer, Sarnia; J. L. Patterson, Ingersoll; J. W. Staples, Bobcaygeon; A. C. Todd, Meaford; John A. Morrison, Mt. Elgin, be the Executive Committee, and that Rev. Mr. Bell be the Director from this department to the General Association."

Moved by Mr. Ramage, seconded by Mr. Rutherford, "That the report of the nominating committee be confirmed." Carried.

Meeting adjourned to 9.30 a.m., 15th.

THURSDAY, April 15th, 9.30 a.m.

Meeting resumed work, with President McKnight in the chair. The minutes of previous meeting read and confirmed.

It was moved by Mr. Palmer, seconded by Mr. Bell, "That whereas it is highly advisable that Trustees of all schools be properly represented in the Ontario Educational Association, and take their part in the Educational Councils of the country, be it therefore resolved that an earnest organized effort be made by this department to bring about the desired result, and that a committee composed of the mover, seconder, the President, Past President, and J. H. Laughton, be delegated to take such steps as will bring about a genereal and uniform procedure in the work." Carried.

Mr. Ramage said in part, "That it is to the greatest advantage for our schools to organize Trustee Associations."

Rev. Mr. Bell urged the organizing of such Associations in every Inspectorate.

J. J. Morrison referred to the organization in Wellington County.

Moved by J. H. Laughton, seconded by J. W. Staples, "That the committee to wait on the Minister be the members of the Advisory Council, the mover of each motion which is to be considered, Rev. Mr. Bell, and the President."

Moved by R. E. Leseuer, seconded by Jos. Staples, "That in the judgment of the Trustees' Department, the time has arrived when an advanced grade should be added to the Public School system."

Considerable discussion arose on the introduction of this resolution. The question was considered too important to deal with at the close of the session, and Mr. Leseuer was asked if he would allow it to remain over until next year and consider it as a notice of motion, and allow his name to go on file as giving such notice. Mr. Leseuer consented to do so and the question will then be dealt with and Mr. Leseuer agreed to take it in charge.

Mr. Little suggested that we obtain the assistance of the Inspectors in their respective districts in organizing County Trustee Associations.

At 10.35 Mr. T. A. Reid read a paper on "The State and its Primary Schools with some present problems."

Moved by J. H. Laughton and seconded by Mr. Jos. Staples, "That we tender our thanks to Mr. Reid for his paper, and that it be printed in our minutes." Carried.

Moved by Mr. Wright, seconded by Mr. Laughton, "That the Executive Committee form a plan to increase the funds of this department, and report at next meeting." Carried.

Moved by Rev. Mr. Bell, seconded by Mr. Rutherford, "That our President vacate the chair and that the President elect preside." Carried.

It was moved by Mr. Ramage and seconded by Mr. Little, "That a hearty vote of thanks be tendered the retiring President for the hearty and able manner in which he presided and conducted the business of this meeting. And for his deep interest taken in the deliberations by the members, and congratulating him upon his successful programme, and although now 74 years of age, they hoped he would have the privilege granted him of meeting with them many more years." Carried unanimously and with applause.

Mr. McKnight thanked the members for the expression and referred to some of the work done in the past, and was pleased to have present with him Mr. John Anderson, who like him had been among the first members when the Trustees' Association was organized.

The session was closed at 12.30.

MINUTES OF THE HOME SCIENCE SECTION.

WEDNESDAY, April 14th, 1909.

The sixth annual meeting of the Home Science Section of the O. E. A. was held in the Senate Chamber of the Toronto University, at 10 a.m. The President, Miss Ewing, was in the chair. The minutes of the last annual meeting were read and accepted. The Treasurer's report showed a balance on hand of $33.82.

The President appointed Miss Tamblyn, Press Reporter, and the following Nominating Committee: Misses Carlyle, Twiss, Hunter, Tamblyn, Delaporte.

The President's Address was suggestive, and the following is a digest: The teachers were urged to face the problem before them and by precept and example to train the public to force the educational value of our subject upon the authorities.

Miss Hills gave an interesting report of English Secondary Schools. This was followed by a comprehensive paper on English Training Schools in Household Science, by Miss Laird.

It was moved by Miss Watson, seconded by Miss Twiss that the papers given by Misses Hills and Laird be put in the minutes of the General Assembly. Meeting adjourned.

The afternoon session was opened by an address by Mrs. Cummings on the work of the Women's National Council. The extensive preparation of the International Council meetings to be held in Toronto in June, were explained and great interest was aroused in the opportunities afforded by this Congress.

Following this a discussion of the display of work at the Toronto Exhibition took place. Miss Hills presented valuable suggestions *re* the judging of the work and reported on interviews with Dr. Orr. It was moved by Miss Fisher, seconded by Miss Delaporte that Misses Hunter and Ewing assist Miss Hills in furthering schemes for the Exhibition. Miss Twiss moved and Miss Steinhoff seconded, that Miss Pattinson be added to this Committee. Meeting adjourned.

Thursday, April, 15th, 1909.

The report of the Nominating Committee was called for, and the election of officers was as follows:

Honorary President	Mrs. J. Hoodless.
President	Miss J. Hills.
Vice-President	Miss Twiss.
Secretary-Treasurer	Miss Eadie.
Councillors	Misses Ewing, Hunter, Steinhoff, Benson, Williamson, Pease.

Miss Benson gave a report on the Lake Placid Conference, which met at Chautauqua, and of the Teachers' Section, which met at Washington, noting that this Association is now merged into the larger one, The American Home Economic Association.

It was moved by Miss Benson, seconded by Miss Laird, that our section become affiliated, if eligible, with the American Home Economic Association.

Dr. Amyot took the last paper of the morning and in a most interesting and instructive way related to the Section his latest investigations of milk problems. He noted the sources of danger in our milk supply and what the position at present is.

2.30 p.m.

Moved by Miss Twiss, seconded by Miss Pease, that Miss Watson be requested to represent the Section at the American Home Economic Association at Denver, in July, 1909.

It was moved by Miss Eadie, seconded by Miss Pattinson, that Miss Benson be asked to report also on this Convention.

Miss Tamblyn gave a review of the most useful books on the subject of Household Science, stating prices of same and giving a short digest of their contents.

Miss Fisher, who had attended the Summer School at Cornell, the previous year, gave quite a full account of her work there, explaining in an interesting way the enjoyment and benefit she had experienced.

At the conclusion of the sessions, the Section adjourned to the University dining hall quarters for afternoon tea and to inspect the work done there during the past year.

E. M. Eadie,
Secretary-Treasurer.

MINUTES OF THE HYGIENE SECTION.

At a joint meeting of the Hygiene Section and Inspectors' Department held on the afternoon of Tuesday, April 13th, the Special Committee appointed by the Inspectors' Department gave their report on "Medical Inspection of Schools."

Following this an address was delivered by Professor Alexander McPhedran on "Medical Inspection of Schools," also another address by Dr. James Roberts on "The Nurse and the Teacher in Relation to Medical Inspection of Schools."

It was moved by Dr. McDermid, and seconded by W. F. Chapman, that a hearty vote of thanks be accorded to Dr. McPhedran and to Dr. Roberts, and that a request be made to the general Association that these papers be published.

The motion was carried unanimously.

The members of the Hygiene Section and of the Inspectors' Department, together with members from other departments of the Association, were unanimous in their request that the General Association be asked to publish these valuable papers.

On Wednesday, April 14th, a joint meeting of the Hygiene Section was held with the Public School, Trustees', Inspectors' and Training Departments and Sections. At this meeting the Compulsory Education Act was fully discussed. The special representative from the Hygiene Section who attended this meeting was Dr. Helen MacMurchy, who spoke from the hygiene standpoint on "Compulsory Education in Relation to the Health of the Child." A report of this meeting appears under the minutes of the Public School Department.

On Thursday, April 15th, at the regular meeting of the Section, Dr. J. H. Elliott read a paper on, "Education in Hygiene, a Means to Protect the Home and Household from Tuberculosis."

Dr. C. J. O. Hastings followed, reading a paper on, "The Danger to Children of Contracting Tuberculosis from Milk."

It was moved by Dr. Oldwright, and seconded by Principal Scott, that a vote of thanks be accorded Doctors Elliott and Hastings, and that their papers be handed to the General Association for publication.

The motion was carried unanimously.

The minutes of the 1908 meeting were then confirmed and the following officers were elected:

Honorary President	William Oldwright.
President	H. W. Anden.
Vice-President	A. P. Knight
Director	Helen MacMurchy.
Secretary-Treasurer	J. Fleming Goodchild.

The meeting had then to be abruptly adjourned as the members were due at the East Hall to assist in the work of organizing a Canadian Branch of the International Congress of School Hygiene, which meets in Paris, Easter, 1910.

Sir James Grant, of Ottawa, at this meeting read an excellent paper on "The Life of our Young Nation."

President Falconer was in the chair at this largely attended meeting.

Sir James Grant was elected President of the Branch. His Excellency Earl Gray, patron; Sir Wilfrid Laurier and the Premiers of all the Provinces of Canada, vice-patrons; the Ministers and heads of the Education Departments of these provinces, vice-presidents, and W. F. Chapman, of 434 Jarvis Street, Toronto, Secretary.

A large number of names for the Local Committee were suggested and a request was made that all educationalists and others interested would communicate with the Secretary and suggest names that should appear on this General Committee of the Canadian Branch.

All Canadians who attended the last Hygiene Congress in London, were elected as members of this Committee also all officers of the Hygiene Section of the O. E. A., Principals and Deans of all Canadian Universities and Colleges, Professors of Hygiene throughout Canada as well as the Health Officers of the various cities and many others. A printed report, giving a full list of the officers may be had by applying to the Secretary.

MINUTES OF THE MANUAL ARTS SECTION.

TUESDAY, April 13th, 1909.

The Manual Arts Section of the O.E.A. met in room 11. Mr. W. A. Adams, Vice-President, in the chair.

The meeting was called to order at 10.00 a.m.

Moved by Mr. Errett, seconded by Mr. Pickles that "The minutes of the last meeting be taken as read and adopted." Carried.

A request was made by the History Section for the use of room 11 for Wednesday, p.m., to permit of the use of the lantern.

Moved by Mr. Errett, seconded by Mr. Moffatt that the request be granted. Carried.

PRESIDENT'S ADDRESS.

Miss A. A. Powell of the Toronto Normal School read a most entertaining and instructive paper on "The Place of Art in Education."

Messrs. Pickles, Seavey, Fleming, Painter and Moffatt took part in the discussion.

Moved by Mr. Richardson, seconded by Mr. Mercer that Miss Powell's paper be published in the annual proceedings. Carried.

The failure to publish Dr. J. P. Haney's address last year came up for discussion.

Moved by Mr. Mercer, seconded by Mr. Houston "that a committee be appointed to look into the matter of publishing Dr. Haney's address in this year's proceedings." Carried.

The Chair appointed Messrs. Richardson, Moffatt and Pickles such committee.

Meeting adjourned to meet at 2 p.m.

The meeting was called to order at 2.15 p.m., when Mr. Faw read an excellent paper on "Connecting the Kindergarten and Manual Training."

Mr. Shorthill lead the discussion, Messrs. Pickles, Inspector Ballard and others taking part therein.

Moved by Mr. Painter, seconded by Mr. Scarrow "that Mr. Faw's paper be published." Carried.

The meeting adjourned on motion of Messrs. Shorthill and Faw.

WEDNESDAY, April 14th, 1909.

The meeting was called to order at 9.30 a.m.

General Business:—

Mr. Fleming of Ottawa brought up the subject of the name of the Manual Arts Section. He thought the name not comprehensive enough since the teachers of Art in the various centres could not come in under that head. He accordingly gave the following notice of motion—

That on Thursday he would move "that the name of the Section be Manual and Fine Arts Section."

Mr. Richardson had secured some information re—the failure to publish Dr. Haney's address last year, stating that the general secretary had thought the cost of the necessary plates too great to be borne by the general association.

Messrs. Pickles and Moffatt gave their report re—"Exhibits at Industrial Exhibiton and Prize-giving."

The members of the Section in general were in favour of the Exhibits but thought the prizes should be confined to books rather than money prizes.

Messrs. Adams, Fleming, Richardson and others followed in discussion.

Mr. Richardson then gave a most interesting talk on "British Schools."

His talk was much appreciated.

Moved by Messrs. Houston and Scarrow that Mr. Richardson prepare his notes for publication in the annual proceedings. Carried.

Meeting adjourned to meet at 2 p.m.

Meeting called to order at 2 p.m.

Mr. Yeo of Galt C.I., read a most interesting paper on "Outline of First Year Work in Wood."

Mr. Houston led in the discussion followed by Messrs. Richardson, Faw, Shorthill, Painter and others.

Moved by Mr. Richardson, seconded by Mr. Faw, that Mr. Yeo's paper be published. Carried.

Meeting adjourned to meet at 9.30 on Thursday.

THURSDAY, April 15th, 1909.

The meeting was called to order at 9.30 a.m.

The Secretary presented the financial statement showing a balance of $20.92.

On motion of Messrs. Scarrow and Pickles the statement was received.

In the absence of Mr. Fleming, Mr. Pickles introduced Mr. Fleming's motion and after some discussion, on motion of Messrs. Scarrow and Pickles, it was decided to change the name of the Section to "Manual and Fine Arts Section."

Election of Officers.

On motion of Messrs. Pickles and Richardson, the following officers were elected for the year 1909-10, viz:—

Hon. President	Miss A. A. Powell, Toronto.
President	Mr. W. A. Adams, Stratford.
Vice-President	Mr. A. N. Scarrow, Peterboro.
Secretary-Treasurer	Mr. D. W. Houston, Berlin.
Councillors	Messrs. Fleming, Moffatt, Painter, Shortill and Miss Stoodley.

Mr. Kirkland then read an instructive paper on "Conventional Lines." The paper was illustrated by slides and was much appreciated.

Moved by Mr. Richardson, seconded by Mr. Errett that Messrs. Kirkland and Rostance be a committee to report on "Conventional Lines" and letters to be incorporated in the published proceedings. Carried.

Mr. A. N. Scarrow read an exceedingly interesting paper on "Manual Training from a Mechanic's Viewpoint." Mr. Richardson and others took part in the discussion.

Moved by Mr. Richardson, seconded by Mr. Mercer that Mr. Scarrow's paper be incorporated in the Annual Proceedings. Carried.

Meeting adjourned.

D. W. HOUSTON,
Secretary.

P.S. I am forwarding you all the copy handed me for publication.

MINUTES OF CONTINUATION SECTION.

April 14th, 1909.

(Meetings were held in room 12.)

9 a.m. registration.

10 a.m. Section called to order. President, J. H. Cameron in the chair.

Minutes published, taken as read, were adopted.

President Cameron's address.

The Treasurer's report was read and adopted subject to the report of the auditors.

W. H. Stewart, E. H. Lindsey:—That Messrs H. Cameron and W. W. Scott be auditors and proceed to examine the treasurer's books and vouchers. Carried.

The secretary outlined the work of the year reporting attendance at every meeting of the executive. The committee on resolutions had not sought an audience of the Department as the matters covered by the resolutions were learned to be already undergoing adjustment. Nine School Boards and fewer teachers than should have had responded to the May, 1908 circular. The ordinary instructions from the general secretary were read and the report was adopted.

Moved by the secretary, seconded by Mr. McGhee, that the President appoint a resolution committee. Carried.

Messrs. Allen, Weidenhammer and McGhee were chosen.

The auditors handed in a written report to the effect that the treasurer's statement as given was correct and the books and vouchers satisfactorily kept.

E. H. Lindsey read a carefully prepared paper advocating a return to the "Fifth Form Examinations." Discussion showed division of opinions. W. H. Stewart dealt with "The Library—How to install and Manage."

Section adjourned at 12 o'clock.

Section resumed at 2 p.m.

A. C. Bernath gave a scathing criticism of the working out of the science portion of the Lower and Middle School curriculum in a paper on "Science Work with Special reference to note books." Thos. Allen dealt with "Desirable Legislation." Much of the matter taken up was incorporated in the resolutions following:

The resolutions below were reported favourably and the report of the committee adopted.

1. That principals of Continuation Schools should be ex-officio members of H.S. Entrance Boards.

2. That Continuation School teachers should have representation on the Advisory Council.

3. That special grants for special qualifications should be added to the teacher's salaries as intended by the Department.

That the amount of Science for the Lower and Middle School courses should be materially reduced.

5. That experience in a Continuation School should be considered the same as High School experience in the matter of granting permanent H. S. certificates.

6. That the Department of Education be urged to provide, even at the expense of the local Boards, some form of general register and record book for keeping an estimate of student work.

7. That Science specialists' standing be accepted in lieu of summer course at O.A.C. for school gardening qualifications.

The officers elected were:—

Hon. President	R. H. Cowley, B.A.
President	A. C. Bernath, Huntsville.
Vice-President	J. A. McGhee.
Secretary-Treasurer	T. E. Langford, M. A. Shelburne.
Councillors	Mrs. Burchill, Miss Minnie H. Tupling, Messrs. W. W. Scott, N. Willison and W. B. Weidenhammer.

The following committee was instructed to interview the Minister *re* resolutions:—

Messrs. Allen, Bernath, Cameron, McGhee, Weidenhammer and Langford, with any others who could conveniently attend.

Meeting adjourned.

T. E. LANGFORD.
Secretary.

FINANCIAL STATEMENT FOR 1908-9, ONTARIO EDUCATIONAL ASSOCIATION.

RECEIPTS.

Balance from last year	$355 68
Member's Fees	427 50
Advertisements in Proceedings	46 00
Advertisements in Programme	93 00
Ontario Government Annual Grant	1,000 00
Contribution from Manual Training section, share of expense of Dr. Haney	10 00
Sale of Proceedings	23 19
	$1,955 37

PAYMENTS.

James P. Haney, New York, fee	$125 00
Mailing Postage, Delivery, etc.	205 03
Expenses of Convention	34 10
Trustees Department annual grant	50 00
Secretaries of Departments	60 00
Printing and binding Proceedings	710 00
Printing programs and circulars	198 30
Secretary salary	125 00
Treasurer salary	30 00
Board of Directors, Railway fares attending meeting at Toronto, in November	34 85
Balance	383 09
	$1,955 37

April 12th, 1909.

W. J. HENDRY,
Treasurer.

R. W. DOAN,
General Secretary.

We the undersigned have examined the books and vouchers of the Treasurer of the O.E.A. and have found them correct and neatly kept.

TORONTO, 14th April, 1909.

J. H. CAMERON,
DAVID YOUNG,
Auditors.

GENERAL ASSOCIATION.

PRESIDENT'S ADDRESS.

W. H. Ballard, M.A.

The few of us who can recall the condition of the schools, a generation or more ago, will need to give the matter but little thought in order to recognize the changes—many of them fortunately for the better—that have taken place in the subject matter of Arithmetic, as well as in the methods of presenting it to the pupils.

The Rule of Three, The Double Rule of Three, the Rule of Three inverse, Simple Practice, Compound Practice with their accompanying taking of Aliquot parts, the Chain Rule, Alligation, Duo decimals, and others have nearly all disappeared from our text books, some dropped because no longer necessary—if they ever were—and others replaced by methods not always more readily applicable but more simple in their use and easily within the comprehension of the pupils.

The old Rule of Three, in particular, was replaced by the "Method of Reduction to the Unit" as it was at first called when adopted from France—better known, later, as the Unitary Method. Some of the best English text books on Arithmetic showed that the authors were a little chary about the introduction of the New Method, and it was given side by side with the Rule of Three.

At last, one author was bold enough to say "I have carefully avoided the unsatisfactory and misleading process called the Rule of Three, which merely teaches the young student how to arrive at certain results, without a thorough knowledge of the method by which they are obtained."

The adoption of this method has now become so general in all arithmetical operations that it has lost its distinctive name, and many of my hearers will scarcely recognize it as a distinctive method at all. As a matter of historical interest I may, therefore, venture to give a definition from one of the text books of that time.

It is this: If the value, weight, length, etc., of any number of units be given, we can by Compound Division find that of one unit of the same kind; and the value, weight, length, etc., of one unit being found, we can by Compound Multiplication find that of any number of units of the same kind. The solution which combines these two processes is called the "Method of Reduction to the Unit."

A second author gives a similar but much more complicated definition, while a third wisely refrains from attempting to define, and merely illustrates the method by examples, and the practice is very simple, notwithstanding the apparent obscurity of the theoretical statement.

The change from the old Rule of Three to the Unitary method, although important in itself, derives its chief significance from the fact that it ushered in an era of reform in the teaching of arithmetic. It gave a death blow to the benumbing effect of teaching by rule, which some of us remember as being so universally adopted at that time. The new method did not come in with a rush, however, it was not borne in triumphantly on the crest of a wave of reform, for the old custom had become very deep seated and died hard as such pernicious customs are apt to do. The change came in by slow and steady steps, but it came surely; better methods of teaching resulted; greater judgment was exercised in imparting instruction; the pupils were led to reason out results; teachers with mathematical tastes had a free hand to teach in a rational way, and took full advantage of the privilege; mental arithmetic was encouraged, though in most cases along very narrow lines, still it obtained an assured foothold, and flourished with considerable vigor for a time.

Then came the pressure of examination to test all educational progress, and the scope of arithmetical teaching was much narrowed, and the intensity of the pressure correspondingly increased; cramming took the place of rational teaching, and a narrow circle of type problems, committed to memory in many cases, soon constituted the candidates' preparation for important examinations. This was but a passing phase, however, and the march of improvement was soon resumed.

The progress of physical science had an important effect in deciding the nature and character of the work in arithmetic done in the schools. The necessity for clearly and accurately defined units for conducting measurements in all the many branches of physical science made its influence distinctly felt in the text books on arithmetic. The terms number, unit, quantity, magnitude, etc., came to be more definitely, accurately and scientifically defined, and a very close approximation to uniformity of definition was reached by the best authors of such works. This led to the adoption, largely, of a method, called by a recent author, who certainly intended no flattery, the "Measuring Method."

It is not to be understood that this so called "Measuring Method" is anything new. Most of the "methods," in arithmetic, which have been put forward to startle us by their apparent freshness and youth turn out, on historical examination, to be quite respectably ancient. The Grube Method must be nearing its hundredth year; the Ratio Method is at least as old as Euclid; and, from the degree of civilization reached by the ancient Egyptians, the Measuring Method ought to be as old as the Pyramids.

However, going back only a hundred and fifty years or so, we find the following statement in a work on mathematics:

1. Whatever is capable of increase, or diminution, is called magnitude, or quantity.

2. Now, we cannot measure or determine any quantity, except by considering some other quantity of the same kind as known, and pointing out their mutual relation. If it were proposed, for example, to determine the quantity of a sum of money, we should take some known piece of money, as a louis, a crown, a ducat, or some other coin and show how many of these pieces are contained in the given sum. In the same manner, if it were proposed to determine the quantity of a weight, we should take a certain known weight, for example, a pound, an ounce, etc., and then show how many times one of these weights is contained in that which we are endeavouring to ascertain. If we wished to measure any length or extension, we should make use of some known length, such as a foot.

3. So that the determination, or the measure of magnitude of all kinds, is reduced to this: Fix at pleasure upon any one known magnitude of the same species with that which is to be determined, and consider it as the measure or unit; then, determine the proportion of the proposed magnitude to this known measure. This proportion is always expressed by numbers, so that a number is nothing but the proportion of one magnitude to another arbitrarily assumed as the unit.

4. From this it appears, that all magnitudes may be expressed by numbers; and that the foundation of all the mathematical sciences must be laid in a complete treatise on the science of numbers, and in an accurate examination of the different possible methods of calculation."

More modern writers have advanced many views as to what constitutes number, but the foregoing commends itself by its clearness and simplicity.

An extended reference to this measuring method might be pardoned on the ground that one of the topics included in the course in arithmetic prescribed for the training schools is as follows:

"The origin of number as a result of the necessity for the valuation or limitation of quantity by measurement; the various steps involved in the development of the number idea; the unit, its nature and use; the necessity for standard units; number,—a ratio."

Also by reason of the relative importance attached to measurements in the work in arithmetic prescribed for the earlier years of the Public School programme.

The introduction of measurements has been most pronounced in its effect upon the Public School course.

It is not so long since the first year of the child's school life in arithmetic was spent at simple addition, the objective point being to add with great rapidity, and with, as nearly as possible, absolute accuracy—a very desirable accomplishment no doubt for a successful bookkeeper or an expert accountant; but of very little use, so far as results go, to a child of six or seven years of age.

Then another half year or so was devoted to each of subtraction, multiplication and division, and the same condition of accuracy was aimed at. Other things in arithmetic came in of course, incidentally, but the endeavour to work the pupil up to a machine-like pitch of speed and accuracy left little time for any thing else in the arithmetical line.

This seemed all right at the time. The order of presenting the subject was logically correct; addition must come first, then subtraction, etc., and each part must be thoroughly learned before proceeding to the next and therefore the child made rapid progress only—he didn't. While learning subtraction his brilliancy in addition suffered eclipse and, by the time he had been dragged through long division, all chance of the subject ever becoming attractive to him had well nigh disappeared.

But when it began to be discovered that the boy who sold newspapers, or the one who had the largest pocketful of marbles, or the girl who did the buying for her mother at the village store, or the corner grocery, showed the most comprehensive grasp, and the keenest insight in regard to miscellaneous arithmetical problems, in other words when it was found that the street and the home were teaching better arithmetic than the schools, it was fully realized that it was indeed time for a change, and new methods came in with a rush, not all of them good, some indeed very far from it, but nearly all were better than the old.

The effect of this change was to revolutionize the arithmetic of the primary grades, and turn the hitherto barren waste into a veritable pleasure ground. A host of authors appeared, each with his own pet system, insisting on unimportant details, and ready to heap ridicule on any system differing from his own.

One distinctive feature, common to all these systems, was the free use of objects to assist in the development of number activity and numerical ideas.

Another was the relegation of the formal processes of addition, subtraction, multiplication and division to the second and third year of the child's course.

This war of systems resulted in the survival of the fittest, the system of measurements prevailing and becoming incorporated in the earlier forms of the Public School programme of study, where the following is laid down as part of the work to be done in the first two years of the course;—"numerical relations based upon grouping and separating objects and quantities; measuring in connection with objective work; common units of measurement within the child's experience," and then a note is added to the effect that, "the need to use numbers will frequently arise in the nature work and other exercises of the class room. The required numerical relations should then be made definite. In this way, with or without figures, many of the analyses and syntheses of the numbers as far as ten will be learned practically."

It should be noted here that in the first two years of the course "addition and subtraction of small numbers" only is required, and that addition, subtraction, multiplication and division generally are deferred to be taken up in Form 2.

The use of graphic methods of illustrating the actual work required to be done in arithmetic has gone far towards removing the old dislike for the subject, as well as the difficulty of dealing with it, even when no positive dislike for it existed.

In addition to the objects required to illustrate the more elementary operations, the foot rule—divided into inches, and the inches divided into halves, quarters, etc., should be in the hands of each pupil. The yard measure should be in every school room. The rod should be marked somewhere on the blackboard, the wall, or the floor. The actual measures of capacity, the pint, the quart, the gallon, the peck, the bushel, should be readily accessible whenever their use is required. The weighing scales must be ready for the moment when it may become necessary for the pupil to ascertain how many ounces weigh a pound. When the measurement of area is to be introduced, each pupil should be supplied with a number of inch squares, with which to construct two-inch squares, three-inch squares, etc., and rectangles of different dimensions; to find out by actual trial how many of these squares will cover a page of his reader, his slate, or his desk. He uses the square inch to measure the square foot, the square foot to measure the square yard, and so constructs his own table of square measures.

For the measurement of volume each should be furnished with the requisite number of carefully made inch cubes, two-inch cubes, etc., thus not only is the measurement of volume made a pleasure rather than a task, but also, and of much greater importance, the proper conception of volume is acquired, and a true foundation laid for all after work in cubic measurements. The pupil gets inside as it were, and investigates the interior mechanism, he builds the structure, and knows the materials of which it is composed. Otherwise he views it only from without and the elements of measurement remain to him a hidden and inscrutable mystery.

An important point, connected with the use of objects might be mentioned here. The prevailing supposition is that any lesson or subject, is sufficiently illustrated if allusion can be made to a wall map, chart, blackboard drawing, or the presentation of an object in the hands of the teacher. There are many subjects and phases of school work of course, for the adequate illustration of which these presentations are all that is necessary, and more particularly in higher grades, but for junior pupils, in a large part of their work, the use of objects should be placed on a much firmer foundation.

If a pupil is to learn to do by doing or to know by doing he must *do*, not merely *see*, he himself must handle and manipulate the objects which are being separated, counted, combined, he must have his own squares and cubes, and build his own rectangles and volumes; he must handle the gallon measure himself, and find that its contents will fill four of the quart measures; the work of putting the square yard or the square foot on the blackboard and subdividing it must be the work of the pupil, and not of the teacher.

A botany lesson is not half a lesson if the teacher alone handles the plant. Each pupil must have his own specimen (of his own finding or growing, too, if possible) and examine, dissect and draw for himself, just as higher up in the scale of grades, each student must do his own work in the chemical laboratory and the biological dissecting room.

The more thoroughly the pupil can become absorbed in his work the more rapid will be his progress and the more comprehensive and definite will his ideas become; greater concentration of attention and a more sustained effort will be secured; there will be fewer opposing forces and therefore a greater resultant. Any one who may doubt this will be hastily reassured by watching children at work in the Kindergarten, the boys at Manual Training or the girls at Household Science.

In the last year or two of the Public School course, enough importance has not been attached to measurements. The introduction of manual training will, however, I think, go far towards making good this defect. Definite preparation in arithmetic for this branch of school work will be quite as necessary as for that of bookkeeping and accounting.

Should this result, corresponding changes will become imperative in the High School course, for the system of measurements is not only based on units, but is a unit in itself, both in its oneness of plan and in its continuity of purpose.

A glance at the examination papers set for High School pupils leaves the impression that some fifty or sixty per cent. of the time spent on arithmetic is, or is expected to be, devoted to interest, promissory notes, mortgages, shares, stocks, etc. How many pupils who take this work will ever see a mortgage, or even a promissory note, much less become a capitalist, or manager of a loan company?

The mensuration of surface and volume receives a due share of attention, of course, though, possibly, it is not always taken up as it should be with definite reference to a selected unit of measurement.

The persistent recurrence of questions intended to have a possible bearing on the supposed future business career of High School students is only one phase of the hitherto vain attempt to give a commercial complexion to secondary school work.

A full explanation of the units used in measuring angles, leading up to latitude, longitude and the origin of the varying standards of time, is quite as useful and much more interesting than a full account of promissory notes. Which promises more for present interest and future usefulness, mortgages or the metric system? Could not some of the time now devoted to shares and stocks be spared for an investigation into the method of selecting a unit for the measurement of velocity? Much of the time given to commission, brokerage and exchange might be utilized in solving problems relating to time, density and specific gravity.

If a change could be effected in this direction, several distinct advantages would result: Variety in the work, and opportunities for interesting illustrations would lead to the same intensity of attention and pertinacity of application on the part of the pupils that now characterize the number work in the primary grades. A unity of purpose and method would run through all the High School work in arithmetic, giving it clear cut, well defined boundaries, a definite starting point, and a logical sequence to its component parts. The student would thus more easily obtain a more definite delimitation of the course marked out for him and could at any time estimate his rate of progress.

And in addition to all this we should have the work in arithmetic still further unified and solidified and—to press into service once more a somewhat overworked phrase,—the measuring idea would pervade the whole course from the Kindergarten to the door of the University.

President Ballard: You will all be glad, ladies and gentlemen, to hear the Honourable Dr. Pyne, Minister of Education, who is next on the programme, and whom I have much pleasure in introducing.

Honourable Dr. Pyne, Minister of Education, was received with applause, and said:

Mr. President, President Falconer, ladies and gentlemen, I can assure you I am very much pleased to be with you to-night. I understand this is your forty-eighth annual meting. You have passed through the precarious time of life in your Association, having gone through the long adolescence, and now fairly arrived, I might say, at vigorous manhood and womanhood.

When I came here to-night I hardly knew what duty I was to perform, as your worthy Secretary told me I would only be expected to say a few words of welcome on behalf of the Government, of which I am a member, to the members of the Association. I have since learned that I was expected to deliver an address. I did not see that announcement until to-day, and I dare say you are very glad, for I have not prepared any address. But at this meeting of your Association, the many questions of complexity that come before you ought to remind you of the very great number of complex questions that come before me as Minister of Education. I may say that I have been going through two or three months of a struggle of that kind. In this connection I might say that all Acts of Parliament, educational or otherwise, that are put on the Statute Book with the very best intent and purpose, with a view to accomplish the very best results, sometimes fail. But the people have this satisfaction at any rate, that when a statute is found unworkable we expect the powers that made it are able to change it. That is a great satisfaction, and it refers also to Departmental Regulations, made with the best intent and purpose and laudable objects in view. Sometimes they do not accomplish just what was looked for, but they can be changed by the powers that be just like Acts of Parliament, if it is found that they are oppressive, or that they cannot be carried out without undue severity. You all know of the law of compensation, so when you read an Act of Parliament or Departmental Regulation for the first time, and its clauses strike you as rather awe-inspiring, let me suggest that you read quietly on, because before you come to the end you may find some compensatory clause that quite removes the terror and the awfulness that you saw there in the first place. There is a story told about the law of compensation by a clerical gentleman who was called upon to succeed a very eminent man, and who felt a good deal of embarassment and difficulty as to how he would manage. He gave the people a long discourse on what he called their duties, what the pastor should do, etc., and then he said, "Remember that the promise of the law of compensation should never be forgotten in this case." He was trying to make his pathway as smooth as possible, and he told the story of the blind man whose hearing became doubly acute and whose sense of touch and nerve sensations became hyper-sensitive, as it were, in compensation for the loss of his sight. Then, he told of the deaf mute, whose hearing had totally disappeared, and how acute other (such as acute sight) senses became, which thereafter afforded a sort of compensation for the loss of hearing. He went on to say that a brother clergyman, who was a great horseback rider, had met with an accident which resulted in the fracture of one of his legs and the parson was laid up for some time, but when he was seen on the street, hobbling, it was noticed at once that the fractured leg was very much longer. So that is a good deal the way with Acts of Parliament. You want to study them very carefully. They are not often what they seem on first sight. Now, it would be superfluous for me in an Educational Association to say a word as to the objects that the Government have had in view in trying to improve the status and condition of the teachers in this Province of Ontario. You may have very fine buildings, fine equipment, but if you have not the teacher the whole of your effort will be lost in complete failure. The great object we have had in view is to improve the condition of the teacher, give him a better opportunity for training and in that way improve the whole educational system of the Province. I may say that the trend of educational life in this Province, and in fact in this whole Dominion, is largely on the great industrial line, the greatest industry we have being that of agriculture, and we have tried to mold our educational system so that it would direct the attention of the people of this Province to that greatest of all industries, the agricultural industry. This year arrangements have been made so that the teachers in training at the Normal Schools will get a special course at the Agricultural College at Guelph, and in that way we will be able to reach the people in the rural districts, the sons and daughters of the great masses of the population in this Province. I might say a word of another branch of education that is now attracting a good deal of attention not only here, but in every Province of the Dominion and every State of the Union, in fact every European country, I refer to technical education. Possibly this will interest the urban municipalities more than the rural; but when I think upon the necessities that will arise if this great question of technical education is to be put in force, as we see it in some of the great countries near us, and in Europe, and think of the enormous expense involved, I begin to look about for ways and means. As I have said on former occasions, I think that in the matter of technical education we have a right to look to the Federal authorities for a grant towards that great branch of education in this Dominion. I say that for this reason. The Federal authorities have put up a great tariff wall around this country; they make you and me pay a duty on the cloth in our coats, an indirect tax; an enormous sum of money is in that way brought into the coffers of the Federal treasury, and I say that when they put up the tariff wall as high as they like around this great Dominion, they should see that every artisan and every worker inside that wall, is well equipped by technical education to turn the natural products that grow in these different Provinces into finished article, so that this work will be done by our own artisans and our own people. Therefore, I hope and look for the day when there will be Dominion grants for technical education given to each Province. Of course, where I have said this amongst politicians, I have someimes had the British North America Act thrown at me. That Act says that all matters of an educational nature belong to the Provinces. We do not ask the Federal Government to work out the system of technical education, but we ask them to give us the means wherewith it can be worked out, and let each Province work out its own destiny on the great natural products of that Province—the natural environment found there, as it were—on the industrial lines that I might say are indigenous to each Province. That can be worked out by the Provincial authorities themselves, but the great need is money. We hear of hundreds of millions being spent on transcontinental railways, of huge sums being spent on public works here and there; but I say that if ten millions of dollars or twelve millions of dollars were given by the Federal Government to the different Provinces of the Dominion greater good would be done a thousand fold for the masses of the people of this Dominion. It would help us in the line of progressive development to which we all look forward with such delight and pleasure. On behalf of the Government, I am pleased to welcome this Association to the Capital of the Province. The Government feel, and I think everyone feels, that the Educational Association is doing a great work. You really are the nation builders of this country; you have an arduous, strenuous life before you, and when you come here we welcome you to our midst. We are glad to see you and to know that you are doing something in the great work of trying to improve the educational system of the Province to which we belong. Allow me to express the hope that your deliberations at this your forty-eighth gathering may result in the greatest possible good to the people of this Province, and that it may be an epoch-marking time in your progress, and that Provincial education will be able hereafter to look back and see that this was an epoch-marking time in the educational progress of Ontario.

President Ballard: I have very great pleasure in introducing to you Dr. De Garmo, who will speak to you on—

"SOME MODERN IDEAS IN EDUCATION."

Prof. Charles De Garmo was received with applause and said: I do not propose to speak of ideas simply because they are novel, but because they grow out of the situation and therefore have some chance to prevail. The first situation that I shall mention to-night is that which has grown out of our American Democracy. As I view the subject, American Democracy has done one good thing for education; it has secured political and social equality. The Public School has been demanded and supported by the great masses of labourers. Their prevailing idea seems to have been from the beginning that those two things, especially the latter—social equality—were the great ones to be attained. That is really an important achievement. It is something that Europe has not accomplished. Europe has no social equality in her educational systems. Their systems are all based on social inequality. We, however, have paid a certain price for this advantage. It has been brought about by giving everybody the same kind of training. A uniform course for eight years has led to another equally uniform course for four years, and after that the higher institutions The price that we have paid for our social equality thus far is the lack of equality in educational opportunity. The old world loves these social distinctions, which are centuries old; and it preserves them in its educational systems. Those systems are separate; they do not abut end to end as ours do, but they run side by side with no connecting switches after the earliest years. Prof. Paulsen, of Berlin, used to say that not one German boy out of ten thousand finishing the common schools ever got into the secondary schools, or could get there in the nature of the case. It is no uncommon thing in our American States to have from 75 per cent. to 80 per cent. of the students who graduate from the Grammar School continue in the High School. That is something the Europeans know nothing about, perhaps care nothing about.

The next modern idea which grows out of this educational and democratic situation, is that we must struggle for a new kind of equality—an equality of educational opportunity. There is no equality under our present system except that everybody may have the same thing; but that is not the best for everybody, for two very plain reasons: First, because talents differ, capacities are not alike; and second, because these higher positions for which we would educate everybody are numbered by hundreds, whereas the candidates are numbered by millions. I think before we get through with the evening that I can show the we have an opportunity to take this new step in Democracy, and building, not upon social inequality as the old world does, but upon the attained social and political equality of this country, we may go on and attain a real educational equality of opportunity.

The next situation which gives rise to modern ideas in education is that which grows out of science. Science has done many notable things for us. First of all, it has given us a new world of knowledge. The old studies pertained to man and his institutions; the new studies pertains to nature; and these two—the old world of man and his institutions, and the new world of nature, working together have given us a third world, a combined and unified product growing out of them, which we call the economic. I do not care to dwell upon this to-night, because we have talked about it so much in our books and our educational publications and our meetings that it is not worth while; but it is very evident to me that the curriculum of the future must have these three departments—perhaps not always in equal degree, but always represented. The human sciences—man and his institutions—we cannot give up; the natural sciences—nature herself—we cannot get along without; and we certainly cannot in this day and age of the world get along without some attention to the economic.

Another thing that has grown out of the scientific situation is the development theory of man and nature. This has done many wonderful things for us. For instance, in Psychology it has shown us that the child is not a little man, a mere manikin, as we were inclined to think; it has shown that he is not a being with intellect alone, but with a heart and a will; and it has shown that he is not an isolated being standing by himself, cut off with nothing but juxtaposition as a relation between himself and the rest. He is more of his ancestors than he is of himself; he is more a product of society than he is of the school or the home; he is a social being from the beginning. Now, all three of those positions are reflected in our curriculum and in our theories of study.

Again, science has contributed another element very useful indeed for us. It has enabled us to overcome the inertness that grows out of too much respect for tradition and authority. If we are inclined, for instance, to think that the old curriculum, which arose with the revival of learning and lasted down to the middle of the nineteenth century, is the only thing, that the rest is simply to be tolerated and not approved, this theory of development teaches us better. If we who teach the very little children, for instance, are inclined to think that Froebel did it all, and that the first interpretations of Froebel are the last, science shows our error. It makes us reflect that Froebel wrote for peasant children of a foreign country at a distant time. It makes us reflect, moreover, that in his day genetic psychology, this development theory of man, was unknown. It makes us reflect, moreover, that Kindergarten teaching in this country is not the teaching of the peasant children of Germany in a past generation, but of American children of to-day, with different social surroundings, a different social heritage, and a different physical background. And we no longer take the view that some were disposed to take a while ago, that new interpretation is profanation to be visited with anathema, but we say we will adapt the words of the master to the situation. It is science and the spirit of science that enables us to take that view.

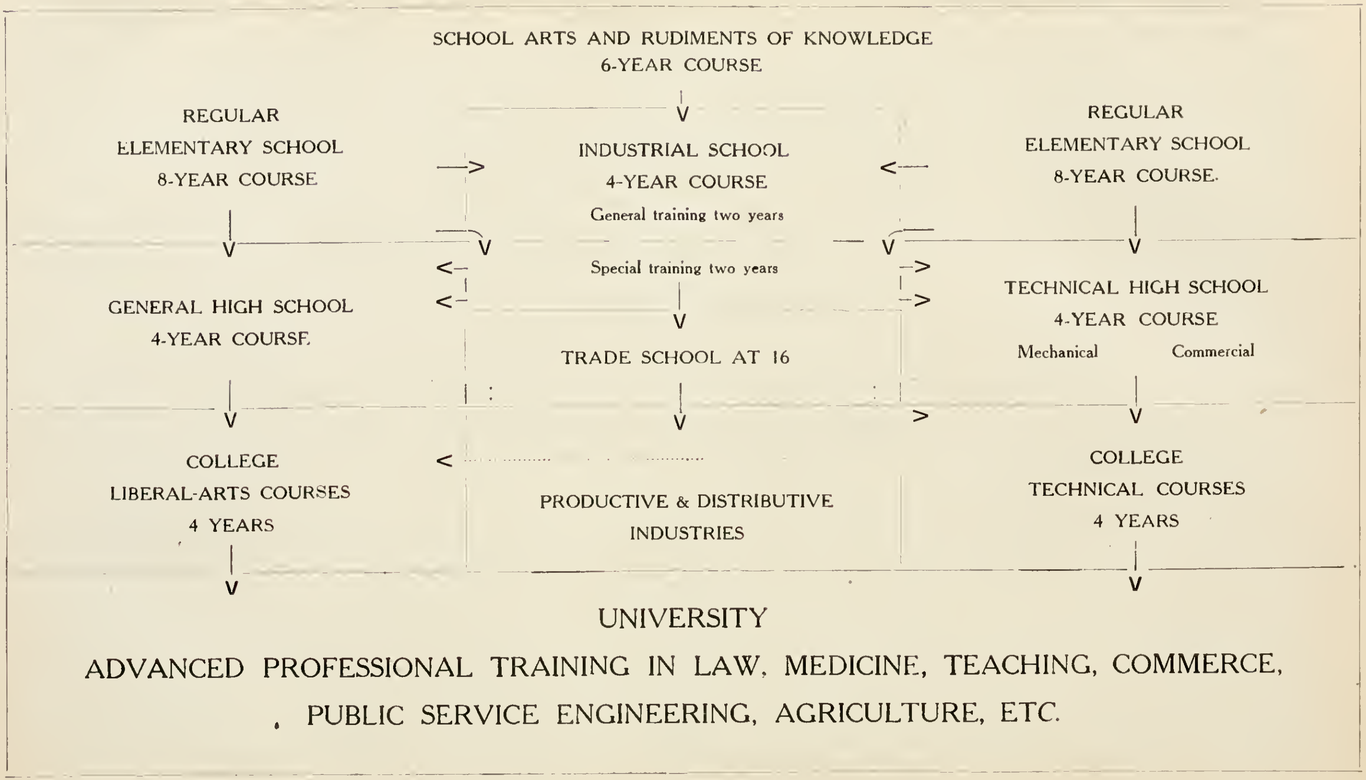
Science, again, has done good work for us in that it has given us a new method. As I propose to speak somewhat on that topic to-morrow I shall not dwell upon it to-night. But that method is momentous in its consequences for education. It gives us a new view of truth. It gives us a new attitude in the search for it. It gives us a conception of the value and sacredness of truth, which we did not have before. As Bacon well said, the difficulty with the older methods of thought were two. The first of those difficulties was that we could not be sure of our premises, because it never occurred to us to examine them, and in the second place we could make no progress, because we would not look for new things. Science has corrected all that, and is responsible for the modern, the broader and more scientific and philosophic views of education.

Another situation which gives rise to some other modern ideals in education is the economic. Productive industry has gone from the home into the factory; that of course we all know; but perhaps we have not stopped to think so very much that it has released two classes of the population from the pressure of productive labour. Those two classes are women and children—a class to teach and a class to be taught. The children are in the school; they no longer contribute to production and they stay in school until they are fourteen. The employers of labour tell us that children are useless before they are sixteen, and some say they are not wanted until they are eighteen. We exclaim, "So much the better; let us have them; they are not being sufficiently educated." And so the proposition arises here and there throughout the country, "Keep them in school longer." But there are difficulties in the way. People are not satisfied. The system does not seem to work smoothly and perfectly. The children won't stay until they get through with the Grammar School, but drop out the moment they attain sufficient age to be employed. The High Schools do not well prepare for College—I am talking about things across the line, and not presuming to describe your conditions, because I don't know them so well as our own—but these are the criticisms we hear: "High Schools are only half doing their work; they have not time enough to do it well." We hear the same complaint in the College; we hear, too, that time is wasted; that we are running two foreign continental systems tandem—one in front of the other; first, the old English system, the cultural education through the College, and then the German system on top of that, with the result that our graduate school is an anomaly—its parallel cannot be found elsewhere in the world. And it is an anomaly in this respect, that the normal, the average, the regular student, is not there; it is only the unusual, the extraordinary student that we find in the graduate school. He may be a freak, or a genius, we cannot tell about that; but we do know that he is not a normal student. And the reason he is not, is that the normal student regularly gets through with his training before these graduate courses come on, and so these students go to the University as to a repair shop, or to get new inspiration for life—that is, some of them. It may be a good thing that they have that opportunity; but what kind of an educational system is it where the exceptional student is the only one you find in your graduate school? So our system can be punctured at every point. Anybody can criticise it. Everybody must criticise it who thinks about it at all. That there is something radically wrong even the blind can see; but what it is? On that point we have many voices. A woman says of the Kindergarten, "It is an infant vaudeville; it is the joy saloon." And her remedy is prohibition. Another writer says, "The difficulty is, there are too many women teachers, and if I had my way I would banish from the school all the women, because they are women, and all the men because they are sissies—(Laughter)—and I would have a new generation of men of a different genus." Another man, this time an Englishman, says, "The only thing you can do is to tear down these Elementary Schools, raze them to the ground and begin again." Now, these remedies are picturesque, but impracticable, because progress does not come from destruction; it comes from growth. What is the difficulty? Over our way we have tried to meet it by addition. We have put new things into the curriculum, and then when that didn't seem to work we tried subtraction, and took them out again—(Laughter)—and when neither of those schemes seemed to succeed we followed John Dewey and tried to organize. Organization is the great word: not addition, not subtraction, but organization. Well, we have been trying organization under various heads, sometimes concentration, correlation. co-ordination—all those pet terms, you know, that we rang the changes on ten years ago, and yet the shortcomings are still with us. Something is defective, and our pet receipe has been that the way to correct a deficient system is to have more of it—(Laughter)—and so keep the children longer in the school. We say to the boys, "Sit still," and to the girls, "Sit stiller." (Laughter.) Now, I believe that these various diagnoses are all wrong, for there is not one of them that solves the problem, although perhaps they contribute to the solution. To my mind, the fundamental difficulty is the breaking away from our race experience, cutting it square off. Now, if for a moment, you will think back over the history of education, you will see that all peoples, say the Greeks, have always utilized labour as one of the chief means of mental and physical development. This they did directly as in their military training, or indirectly through their athletics, and for the whole peasant class there was no other way of developing the intelligence except through physical work.

Now, work we have banished from education, we look upon it as a curse. At any rate, we act as if we thought it was a curse, for we shut it out. I believe that the only solution will be one which brings us back into the line of race experience and puts work back into the schools—or puts it into, if not back into the school. I do not believe the masses of mankind can be properly educated without work or that they will respond to an education that has no labor in it. (Hear, hear, and applause.) I will give you a concrete instance. Ikey, in New York City, was a incorrigible truant. He had been dragged back time after time into the school, only to run away at the very first opportunity. Finally, the policeman one day dragged him into school No. 110, down on the East side in New York, then stood in the door and watched him; Ikey glared at him. Finally, the Principal came in and said "Your name is Ikey?" "Yes." "Don't you want to come?" "Naw, let me go." "Well, now, Ikey, you need not stay here if you do not want to, but don't you think it would be just a little reasonable on your part if you looked around to see what we are doing here before you decide that you don't want to stay? If you will go through the school and tell me when you get through that you don't want any of it, that will be the end, and the policeman will let you go. Will that satisfy you?" "All right." "Go alone then and look at everything." And the first thing he saw was a group of students sitting at desks studying. He looked at them with ineffable disdain and passed by with his nose in the air. At the next room he came to the boys who were working at the Manual Training; and in the next they were drawing in preparation for their Manual Training. Everywhere he went, except in the first degenerate group, where they were merely studying,—(Laughter)—the pupils were doing something with their hands; and when he got through he said, "Gee, if that's what you do here, I'll come." Ikey came, and stayed of his own free will—which leads to the reflection that on our side of bad boy. (Laughter and applause.)

I have put into your hands here to-night a little scheme of organization of education in which the work element shall enter, to show how it seems to be possible to get educational equality of opportunity without breaking up the social equality. Why should we take eight years for this preliminary work? We have tried to make a complete cultural education out of the Grammar School course, on the idea that most of those pupils will never have any other, and consequently it ought to be ideally perfect as far as it goes. Well, there are many things that can be said for that view. There are some classes of our population that will take that and thrive upon it. Down at Boston the Committee on English will give you a programme that would appall anybody who lived in another part of the globe. (Laughter.) It is evidently designed to make Lowells and Holmeses and Longfellows. It is a complete literary education. It would be an infinitely better literary training than most of us ever enjoyed. Now, doubtless there are

RELATION OF INDUSTRIAL TO OTHER SCHOOLS.



some children in Boston who can thrive on that kind of diet, (Laughter), but most children cannot do so; they are not used to it; they are not native to it; it is not in their blood. We must go back in education, as we sometimes do in medicine, to primitive habits. If your digestion fails you because you eat too much starch with the cellulose all taken out of it, do as I do and eat shredded wheat biscuit with the cellulose in, and you will get over your indigestion. (Laughter.) If you get too much indoor life, and your lungs threaten you, do as my wife does—go back to nature by sleeping out of doors, and you will get well. In the same way, we must get back to nature in education, to the inherited nature of those children, if they are going to thrive. Now, this proposition first of all is that we may run the elementary scheme just as we have it in its eight grades, but that we may also offer the opportunity of breaking away from it at the end of the sixth grade and go over into what is real preparation for industrial training. That training would begin in the seventh grade and run through the last two years of the Grammar School—and would look toward a certain end. It will develop, or may develop, live motives, and not simply dead ones. From that point on it may rapidly progress towards industrial life.

Permit me at this point to make a suggestion calculated to soothe the conscience of the schoolmaster, which is always aroused and hurt and troubled if anything is left out of his cultural scheme. He wants to make broad, patriotic citizens, with high ideals of morality, which he will develop with his literature, and his history and all that sort of thing. He wants to make culture an occupation. My suggestion is that if we do break away from culture as an occupation, we have one recourse—we can make it a recreation. Why not? Why not bring in the pianola and let them hear the best music of the great composers? Why not bring in the graphophone and let them hear the great tenors and the great quartetts of the world? Why not cut the pictures out of magazines and bring them into the school and let the children classify them in accordance with certain artistic ideals? Why not make that kind of culture a recreation, Why not read beautiful selections of literature to them, just enough to stimulate the appetite and then say, "Continued in that book on the shelf." Give them a chance; expose them to the literature. Try to believe that maybe after all Mr.

Freeman had a grain of sense when he said that literature has to do with sentiments and feelings, and asked, "How can you teach those things?" Or, as Mr. Freeman put it, "How can you examine upon them?" (Hear, hear and laughter.) He says you cannot do it, for if you try to feel of your feelings to see how they feel you will spoil them. (Laughter.) But you can arouse emotion by artistic reading and through dramatic display. If the books are there, the children will read them—at any rate, they may do so. Thus culture will not be lost, even if it ceases to be an occupation. It may become a recreation, and who knows but what it will acquire a quality better than any we get to-day? At any rate, it is worth trying.

How shall this work be arranged? On what principle shall it be organized? How conducted? What will it consist of? I apprehend that it will begin in the seventh year, according to this model scheme, and that it will consist of the same old subjects, but reorganized to a new end. Copernicus, you know, used the same old stars, but he made a new astronomy by getting a new standpoint. You may use the same old subjects; indeed, you will need to, but you will get a new effect by putting them together in a new way. Here in these books from the German Continuation Schools it has been done. Here I have Arithmetics and readers, but you may be surprised when I show you what they contain. This is a reader for bakers. What do the selections consist of? Not literature in general, taken at random; not poetry as such, no effort to develop emotions, or any thing of that sort; but useful elementary knowledge put into a literary form; all about the cereals,—their history, their antiquity, the way they are raised, the way they are manufactured into flour, the way they are fabricated into bread and cake and pies, and the like—not literature as an end in itself, but reading for bakers. This other one is for cooks and waiters, and you would be surprised to see how much useful knowledge can be put into that little book, and how admirably it may be stated. This is one for barbers. Now, perhaps you think that is idle. But just glance around the audience, not looking towards the stage, and you will see that scientific knowledge of the treatment of the hair and the scalp would be useful. (Laughter.) Here is a reading book for metal workers—the whole history of metals. The greatest industries in this country to-day are concerned with the metals, and it is no mean subject for a boy to read and learn about. These other books are arithmetics for the various classes—this one for the boys that go into the building trades, and every problem there has to do with those things. This is one for waiters and cooks. Here is an arithmetic and geometry for the use of metal workers. Here is an arithmetic for the use of butchers. Here is another for bakers. These are simply samples; there are forty different trades represented in the Continuation Schools of Munich. In Halle, where I got these books, there are thirteen different trades represented. The Leipsic Verein. (Teachers' Association of Leipsic) compile these books, and they are put into the schools.

The principle upon which this work is organized may sound curious to you as applied to elementary education, but it is only because it is brought down the line that it seems strange. If you look into any one of the technical institutions in this or any other University you will find that principle actively at work. It always has been and always will be, and that principle is simply this—that every profession that is worthy of study is founded upon fundamental sciences, human and natural. No profession is worth talking about unless it is so founded but every profession studies those sciences from its own point of view. The agriculturist organizes his chemical knowledge around the idea of plant growth and soil composition. The medical student organizes his knowledge of chemistry around the idea of medicine and digestion. So important is that knowledge that even to-day they are announcing some astonishing things. I received a medical journal from New York a few days ago concerning a new ferment made by chemical means that is exactly the same as the digestive ferment that breaks up starch and sugar, and there were a hundred testimonials from doctors of actual cases in which they had cured incipient consumption, and has also cured diabetes in perhaps 95 per cent. of the cases. The medical student must know chemistry, but he cares nothing about it from the agricultural standpoint. And the same thing is true of everybody else. The mechanician studies physics very differently from the doctor or the lawyer. That principle is perfectly well understood in the University. We ought to adopt it in our Normal Schools wherever there is time enough for it. The Normal Schools in New York to-day are in a deplorable situation for lack of three good things—sustenance, freedom, and intellectual life. They have little freedom, less sustenance and no intellectual life whatever. (Laughter.) And why not? Because they get men into the State Department who have the idea that the Normal School must not do anything but teach purely professional subjects. And what do they permit to be taught? A morsel of Psychology; a still smaller morsel—a morselette, I suppose—of logic; 80 per cent. of methods—twenty weeks of methods in every subject. I have not imagination enough to see what they could do with 80 per cent. of their time spent for two years or thereabouts on methods; and the rest is practice. Now, if you can find any intellectual life in that kind of a programme you can do better than I. That Commissioner wanted to cure educational repetition, and he did it. The Normal Schools were repeating the High School work that the student had just passed through. He said, "That must not be done; we have the High School to teach High School work; you must teach professional studies only." In doing that one little thing he simply killed the intellectual life of the school. (Hear, hear.) Now, if they would accept this principle of which I am speaking to-night, they could have an intellectual life; for they could study the fundamental sciences, not after the manner of the High School student, but as the medical student, or any other technical student does. Then through the application of that knowledge in their practice work they could get all the method that would do them any good. Now, I rehearse these things simply to remove the strangeness from my proposition. I propose to organize this whole industrial work according to new and somewhat definite ends. I would take the drawing, for instance, as one of the most important things. In the States, drawing has perhaps made more progress in the last ten years than any other subject in the curriculum; but when you ask yourselves what comes of it you have to reply, "Little or nothing." We have avoided with great pains any blind alleys in our system of organization; that would indeed be a sin and a crime,—to have an organization such that a boy could not go on as long as he wanted to; but it never has been a crime with us to kill a subject—to put that into a *cul de sac* which leads nowhere, which devours itself, like a snake that begins with his tail and swallows himself all up. (Laughter.) I can find in University classes only from four to six students in a hundred who have ever thought of or used their drawing for a moment since they left the High

School. It is a blind alley; it leads nowhere; it comes to nothing in the higher life of the student. And why? Because it lacks a live motive. But now suppose you begin here; just continue your drawing from the sixth grade on into the seventh, and let those boys and girls feel that that drawing is coming to something, that their freehand drawing is working towards design—it is design of a crude sort now—and is going to lead into the design used in industries,—the making of hats, of clothing, decorations on the wall paper, the thousand purposes for which design is used. Let them see that and feel it, even distantly, and your dead motive takes on an aspect of life. Thus this freehand drawing will move on, developing technical power as fast as the student goes, and leading into productive or creative forms. I have four large folios in my museum that came from one of the Brooklyn schools organized on that plan, and it is an inspiration to look at them. You can see the life; it thrills through the dead pages; you can see that every mind there has been alive because the work is his, it is creative, it is original, and yet its technique has been learned at the same time. If you go into the mechanical drawing, that will lead into the mechanical trades. The drawing may thus become a thoroughly live subject. In the same way, the arithmetic may be organized, I don't think so specifically as it is in these German books, but more specifically than it is now. I think we can take on some of these new ideas in mathematics that arose with John Perry in England and have been exploited in some of our new books, in many of our journals, and discussed in our Associations—that of organizing mathematics around concrete ideas so that boys see where the thing is leading, and have the feeling that it amounts to something. Then, geography would deal with the same old earth, but would be studied from a new standpoint—the standpoint perhaps this time of commerce more than anything else.? They will learn about distant peoples and will have an exhibit of the raw materials of commerce before them, gathered partly by themselves, partly by district museums. The geography will center about it and look towards a commercial life for many of the boys, because this industrial school ought to be a broad school, in that it leads in many directions, into many occupations. I would not debar language. If you want a foreign language to read, you may learn it any time. If you want a foreign language for use, you must learn it early. All our foreign language in the States begins too late. Students have to begin the Latin in the first year of the High School in order to get anything done in the four years, and the French or the German or the Spanish is left on to the second or the third year before it is ever begun; and that is too late to learn it for use. But if you begin when these children are 12 years of age—the Germans begin at 9—you will have time enough. The organs of speech will be plastic, the ear keen enough, so that you can get the language in form for use. So in this industrial school I would have many of the boys and girls study French and German and Spanish, perhaps not all three, but at least one of them,—study it as children, learn to talk and write it. We have little idea of how and why the European masters a foreign language. He uses it not for polite literature or fairy tales, but for business. Crossing the Channel two or three years ago I met a young fellow and spoke to him in German. He replied, and we talked in that language though my German was then rusty with twenty years of disuse. I did not discover until we got nearly into Paris that he was a French boy, sixteen years of age. His mother came down to meet him at the depot, and kissed him, for the young son that he was. What had he been doing in England? Selling goods through the use of the English language. That is what a language means when it is begun betimes and studied with a purpose, when the motive is not purely literary, but commercial. So you can take all the subjects of the curriculum of the Grammar School. You can go on with your History, your Geography; you can begin your foreign languages; you can go on with your Arithmetic and Drawing and adjust them all to a common purpose. Why not? Your Manual Training will not then be as now—a mere recreation for brain-fagged youth,—and be given but one or two hours a week. There is no greater farce than educational authorities ever perpetrated upon a trusting people than that. (Laughter.) It is a pretence; a semblance; it is a symbol of a real thing, but not the real thing itself. If we are going to introduce real work into the curriculum, put it in as work and give it time enough. Let it, of course, not be that tiresome, weary, degenerating drudgery that Markham celebrates in his "Man of the Hoe," but labor of a new type, full of life, arousing to the ambitions, full of problems to be solved, occupying the best of the mind of the boy or the girl. And when we get through we shall still have culture as recreation, but better than that our work will be animated by live motives; and while preserving the social equality which we have already attained, we shall have an education that will be Democratic in a new sense, in that it gives equality of educational opportunity as well as social equality in the old sense; it will be thoroughly scientific, in that it will proceed in accordance with the laws of the mind; and it will be truly economic, because it will be a real preparation for a real world. (Loud applause.)

The President announced the election of officers, and called for nominations for the Presidency.

Mr. J. Denny: I believe it is the turn of the Public School Department now, and I have much pleasure in nominating Henry Ward, of Toronto, as President.

William Linton, of Galt, seconded the nomination.

As there were no other nominations, Mr. Ward was declared elected by acclamation.

Mr. R. A. Gray nominated Mr. R. W. Doan for re-election as Secretary, saying that the jubilee of the Association will be celebrated in a year or two,, and it would be a mistake not to have Mr. Doan as Secretary at that time.

Mr. Suddaby seconded the nomination.

Mr. Doan was unanimously re-elected.

Mr. David Young, of Galt, nominated Mr. Hendry for re-election as Treasurer.

Inspector Dearness seconded the nomination.

Mr. Hendry was unanimously re-elected.

TEACHERS' ALLIANCE.

Mr. L. E. Embree reported on behalf of the Teachers' Alliance, draft constitutions of which had been distributed. He referred to the need of co-operation between trustees and teachers in all educational interests, and went on to say: "Any mistakes or difficulties between trustees and teachers are largely due to want of clear understanding between them. We do not believe that the trustees desire in any sense to do any wrong to the teachers. We believe that the teachers generally wish to do their duty. We feel that the Alliance will be able to give such information to our local and Provincial authorities as will enable trustees to act in a better and more uniform way towards the teachers, and in regard to the interests which they are elected to serve. This Association has existed for forty-eight years, and has kept in mind largely the interests of education in the Province. The teachers cannot be charged with selfishness in the objects which have brought them here year after year. The primary aim has been to advance the educational interests, to make the schools better, and incidentally, perhaps, to benefit the teachers themselves; for anything that benefits the teachers is a benefit to the profession, and vice versa.

"The difference between the Ontario Educational Association and the Ontario Teachers' Alliance is simply this: the primary objects of the Association has been to raise the status of the profession throughout the Province, to benefit the schools, and to make its members more efficient in their work; in the Alliance we put the stress a little more on the other side; its main purpose is the direct benefit of the teacher, and, incidentally, the benefit of education throughout the Province. We believe that these two are very closely linked together, and one cannot be helped without the other. We desire to secure a good deal of information, which we want to have brought together in a register which will be extremely useful to trustees and to teachers. In order to disarm any hostility towards our Alliance, which some people may think is on the same plane as certain unions that are formed for purely selfish purposes, one very important difference may be pointed out. It is this: we are not aware, in this country, at least, that the trades unions see that their members carry out thoroughly the work which they are paid to do; we are not aware that they are disciplined if they neglect the work entrusted to them or spend too much time over it. On the other hand, our Alliance has a clause in the Constitution which reads like this: "To extend protection to any of its members who may be wrongfully treated in any matter relating to their professional work, also to exact from them the proper fulfillment of their professional duties." We wish to assure trustees that it is not the intention of this Alliance to support an inefficient teacher in his place, or to support those who fail to carry out their contract. It is our intention to discipline teachers of that class. We trust that the Alliance will always have on its Executive men and women who will not be stampeded into doing foolish things, into undertaking the cause of some person that is inefficient, or neglectful of his duty, who will not become hysterical because in some corner of the Province a teacher has been dismissed for a certain action, and the cry comes to us, 'What is your Alliance doing? Why don't you take up the cause of this teacher?' Are we sure that the teacher is right and that the trustees are wrong? Let us be satisfied of the facts before we take action. To this end we are establishing branches in the different parts of the Province, and these will be look-out pickets for us. Wherever ten teachers can be brought together they can establish a branch, and, knowing the conditions that exist in their own neighborhood, they can satisfy themselves as to the right and wrong of anything that is hapenning there, and they can acquaint the central Executive with the facts and conditions, and then we will be able to take action. I assure you we are not simply knight-errants. We are not going about to rescue fair maidens from the dragon trustees, unless we are sure that the maidens are in the grasp of dragon trustees. We want to be sure of the facts before we undertake any rescue.

"Now, the question is sometimes asked, 'What have you done?' Well, we have not done much. We have been in existence only two years. We have now a membership of about seven hundred. That is not a very large proportion out of 12,000 or 13,000 educationists of the Province; yet when I see how few of those teachers in the Province attend the meetings of our Association I think that, after all, we have done fairly well for two years. We are sowing seed, and we are not going out each morning to dig around it and see if it is sprouting; we want to give it time to grow and develop. We hope we are sowing it in good ground so that hereafter it will bring forth fruit to the honor and advantage of the education of this Province. We are not asking the Grand Trunk Pacific Railway Company how many bushels of grain they brought out this year. They are laying tracks and surveying, and we have to spend time also in that kind of work. Still, we are ready to take up anything that comes to hand, and a few things have been taken up which I need not mention here to-night.

"Among other things, I should like to see the solidarity of the teaching profession better recognized than it is. All honor to St. Catharines, Brantford, and the other cities which are recognizing the value of the work a man does in one place when he goes to another place, that the same law that applies to other businesses and occupations should be applied to the teaching profession.

When a clerk is brought from an outside place and put into a bank, if he has had experience he does not begin with the salary of a new man, but he is classified and paid, in some measure, at any rate, according to the experience he has had. I hope the same principle that applies to financial institutions will be applied more generally to teachers throughout the Province than it is to-day." (Applause.)

"Now, what is all this to us? I don't know that those who have taken an active part in the formation of this organization, and who are at present the officers and members of the Executive, expect to derive great personal profit or advantage from their connection with it. It has been said to me that teachers will not have confidence in one another, and that you cannot rely upon them. I do not believe that. I believe that when the teachers become connected with an organization of this kind we can trust them to be faithful to what the organization is trying to carry out. Teachers sometimes ask, 'What is the use of my joining an organization of this kind which is of no advantage to me?' What is the use of our coming to this Teachers' Convention year after year? How many have ever derived any personal gain from it? I hope our minds have been improved; I hope we are better teachers because we have been here; but how many can point to anything in their lives which enables them to say, 'This Association has been of material advantage to me?' I don't think many of us can. And yet, we come year after year, because we believe that we do gain advantage from it in that we are becoming better teachers. And surely the teachers who have been self-sacrificing for so many years in the interests of education in order to make themselves more efficient are prepared also to recognize the claims of the Ontario Teachers' Alliance upon them and become members of it, because it is going to benefit somebody that they have never seen or heard of, perhaps some young teacher who is just beginning his work; or because it is going to be a help to some old teacher to keep his place when he is in danger of being driven out unfairly. I believe teachers are unselfish enough to take hold of this Alliance, and take an interest in it, and assist it by becoming members, and by trying to spread its benefits throughout the Province." (Applause.)

PROBLEM FORM OF INSTRUCTION.

PROF. CHARLES DE GARMO.

Thursday, April 15th, 1909. 11 o'clock a.m.

By the problem of form instruction I mean, firstly, a form which enables the student to get at the facts for himself, whether it be at first hand or at second hand, a form of instruction which incites him to find out for himself what they are; secondly, by the problem form of instruction I mean a form which induces the pupil to find out the meaning of those facts which he has discovered; and, thirdly, to untilize the meanings which he has found, in their larger applications. My thought is therefore threefold: the getting of the facts, the learning of the meaning of the facts, and the use of the facts.

You will recognize at once that some phases of this problem form are inevitably in all instructions; in most of our arithmetic, indeed, in our mathematics in general, a large part of the work is the application of mathematical principles. That is the third aspect. In the translation of foreign languages you recognize at once that the application of the rules of syntax, of the rules of etymology to the text, are aids to the student to find out the meaning of the sentences. That might also be called a partial use of the problem form of instruction.

I use the term "problem form of instruction" very much in the same sense that the man in the world, who has a problem to solve, uses it. There is only one way that he can proceed, if he is to proceed successfully; he must find out what the essential facts are, learn from his own investigation what their meaning is, and then apply that meaning in any way he pleases. We are all familiar with the works of Mill and Bain and Jervons, and more recently of Ernst Mach in Germany, showing us how the man of the world must proceed to be successful.

Over against this complete form of instruction we have all these partial forms, to some of which I have referred. Sometimes the text-book gives the facts, and we ask the pupil to memorize; sometimes the text-book gives the meaning of the facts, when we ask the pupil to read, comprehend, and use them. It is very important that we should proceed in a scientific way, because here is the situation in the schools: the man of science, or the man investigating problems for himself in the world of affairs, has his knowledge of fundamentals behind him, so that all he has to do is to attack the new problems, and find out new meanings. He may concentrate his efforts without concern as to the past. But the student must gather up everything of importance that has been done before; he has a long road to travel; he never is on the outskirts of knowledge, but is always approaching them at a slow rate. We may say, however, he is always on the frontiers of his own knowledge and that is the redeeming feature; so long as the student can feel he is on the outskirts of his own knowledge and may push on a little further by his own effort, then there is life in the school, and the more freely that method is used the more abudant the life will be.

Mathematics, as I say, illustrates this third stage of the problem form, because we always have these exercises, or as we usually call them, "problems" to solve.

Geometry, however, furnishes many good opportunities for a wider application of the problem form of instruction; as I used to see the geometry classes in Germany, the teacher gave the proposition, asked two or three questions the day before the recitation was to be presented, so as to see that his students' minds were on the right track, and then said, "Go ahead and work it out, make that demonstration, prove the theory and bring it in to-morrow written in your note book." That gives the student much to do. He must use his own mind; he must exercise his constructive powers in devising the figures needful to enable him to see the true relations. In the old method of geometry whereby we had the written text-book, with the demonstrations all worked out, the student being required to read them and to memorize them, we got none of the essential features of the problem method. A compromise between those two extremes is found in a text-book in which the leading propositions are demonstrated, and many so-called "originals" are given for the student to prove for himself. That seems to be a very happy compromise.

In the same way you may approach these problems in the class room, by a process whereby the teacher asks questions and the pupil answers them; the answer calling for his best thought, his active co-operation. When we develop subjects *de novo* in the school, as in natural science, we may set the problem before the pupil, if it is a comparatively easy one, and let him solve it through his own efforts. Suppose it is a nature-study class and you are coming up to the subject of the ordinary pump—to be sure we don't need pumps very much in the city, but in the rural districts they still use them, and it is always a good exercise. Give the pupil two corks, a cylindrical lamp chimney, a bit of leather, a gimlet and stick; then tell him to make a pump that will work. Ask him to explain why it works. He will probably tell you that the cork with its valve sucks the water up, when you will ask him what he means by "sucking water up." If he tells you that nature abhors a vacuum, of which he may have heard some time (laughter), tell him that you do not, but that you abhor an explanation of that kind; tell him you want a simple explanation, which anybody can understand. Of course, if he has absolutely no knowledge of fluids and their freedom to move in any direction, no information about the air and the pressure it exerts, he lacks a view of the subject which would enable him to solve the problem, and your part as a teacher is to furnish him the necessary knowledge concerning the pressure of a column of air outside the cylinder, and of the pressure inside, and then let him experiment. Suppose he leaves out the lower valve; the water goes up, but it also comes down again. So proceed until the entire event is understood.

Nature-work from beginning to end ought to be filled with that sort of incentive to thought—the discovery of facts, the meaning of facts and the utilization of facts and meanings when they are found.

Science, of course, lends itself most naturally to the problem form, and we teachers of other subjects have much to learn from our scientific brethren. They have perfected a much better scheme of instruction than we ever had, even in our mathematics and languages. I think we shall have to say that science, which forty years ago had no method of its own whatever, but was taught by literary methods and was in consequence a failure, has now perfected a method which is universal, which would be recognized by a scientist anywhere in the world, and which is common wherever scientific thought exists. First, they have a laboratory, which we have not in most of our other subjects. In our University at Cornell they have succeeded in getting a teacher for every eight students, or thereabouts, an elbow-to-elbow teacher. In the other subjects we are more likely to have one teacher to forty students, and some of our classes number hundreds. We are thus condemned to all the barrenness which may accompany the lecture system. Science teachers have their demonstrations in class where pupils may see; they have their class quizzes, their technical work, etc. Of course, they can teach better than we can, unless we bestir ourselves and borrow from them the essential elements which, I take it, is the very thing I am advocating—this utilization of the problem form of instruction, so that the pupil uses his own mind in getting at the facts, in discovering their meaning, and, of course, using his ingenuity in applying the principles which he has found out.

I want to take an illustration from one of the non-scientific subjects to show how this method might work. I suppose that part of this audience to-day will be made up of High School teachers. I have not prepared my illustrations to suit all grades, but you may make your own applications as I go along, and while I talk of one phase of history you can be thinking of some other with which you are familiar.

For some reason or other, possibly because as a boy of sixteen I stood guard near the old battlefield of Chickamauga and was nearly scared to death, I have chosen the battle of Chickamauga as an illustration of a military campaign to be worked out by the problem method by a class in history. You can choose any other campaign to think about as I talk of this. Now, what should the class do. Perhaps nothing as a class. There may be only half a dozen crucial battles or campaigns in the whole military part of the history with which you are dealing. Your boys won't be satisfied unless you say something of the battles, because they like to hear the guns go off, if they have to imagine it, and they are not particularly averse to bloodshed. What can you do that will be more profitable for them and yet not make them too bloodthirsty? Take their minds away from the terrors of the conflict itself to the ideas represented by it.

The battlefield of Chickamauga lies a little south of Missionary Ridge and south-east of Chattanooga, which is situated at the lower end of the Appalachians as they come down and make a turn around into northern Georgia and Alabama. That position was a most crucial one during the Civil War. It was the key to the connection between the West and the East for the Confederates. It had railroads to the Gulf, to the Mississippi, to the Ohio and above all over into the Valleys of Virginia. It was a short line between the Confederate armies of the West and those of the East, which enabled the Confederacy to concentrate its troops at the point of greatest pressure. There was scarcely a great battle fought in Virginia that was not fought not only against troops from the West, but against Southern troops from Virginia, and no great battle in Virginia that was not fought partly against troops from this Western country. To get from East to West, Northern troops had to go around through Ohio, Kentucky and Tennesee.

Chattanooga was the chief base of supplies for the Confederate armies of the East. It was along those lines that they expected to get their food. The Mississippi had been opened. Grant had captured Vicksburg and rent the Confederacy in twain, the Father of Waters, as Lincoln said, flowed again unvexed to the sea. But if the Union forces could capture Chattanooga they could again cut the Confederacy in twain.

In the second place, I would have the class itself make a map, or a group of the class, of which I will speak later, showing the parallel ranges running down from north-east to south-west, cut by the Tennesee River, which at this point makes a great bend, the Moccasin Bend it is called, since it has the shape of a moccasin, and flows at the foot of Lookout Mountain which looks down upon the river below and commands it. Then we have the Raccoon Mountain Range, Missionary Ridge, forty miles long, and so on, range after range.

At the time of this movement the Confederate army was under General Bragg, and the Federal army under Rosecrans, a hundred miles or so north of Chattanooga. The question was, how to capture Chattanooga? The people in the North were aroused concerning it, determined that they would have it. They urged an advance. Vicksburg had been captured and the next thing was to capture Chattanooga. Rosecrans had more soldiers than Bragg, so he outflanked him until he drove him into Chattanooga.

Bragg thought the Union army would assault the city from the northwest, from over the mountains. Rosecrans had a different plan; he sent his soldiers down these parallel ranges between the valleys and shot them through the passes, division after division, to cut off the supplies of the Confederates from the South. These all came up from Atlanta. That plan succeeded and he compelled Bragg to evacuate the city, but in doing this Rosecrans had scattered his troops a distance of forty or fifty miles up and down those mountain ranges. He supposed Bragg was in precipitate flight, but in reality he was not flying at all, but full of the lust of battle, was waiting to fall upon the detachments of the Federals. But Bragg lost his opportunity by waiting for re-inforcements. After five days McCook's division came up from the far south, and Rosecrans' army was once more a unit.

Then began the battle. The first day was rather favorable to the Federals; the second promised well, when there happened one of those series of contingencies, which nobody can count upon beforehand, and brought about the defeat of the Union army.

Near the Union centre were three great divisions; Reynolds', Brannan's and Wood's. Brannon's Division was hidden in the bushes, and a Staff Officer of Gen. Thomas, riding by, noticed an apparent gap between Wood and Reynolds, and reported it at once to the General. Gen. Thomas immediately sent this news to Gen. Rosecrans, who wrote an order to Wood to close up on Reynolds as rapidly as possible and support him. There was Brennan's great division between. It was one of the cases in which a genius would have disobeyed orders, but Wood apparently was not a genius. He was confused by the order. He said to himself, "What can he mean? I cannot close up on Reynolds. What he must mean is for me to march around Brannan and support Reynolds," and this he did. So, through an effort to close an imaginary gap they made a real one. That would not have been so bad, if another circumstance had not fitted exactly into this one, viz.: at the moment Wood broke the line of battle, Longstreet, who commanded the Confederate left had an order to charge, and he poured eight brigades right through that dreadful gap. He slammed the Union army back right and left like a double door on its hinges and crushed them both. Nothing human could stand against an attack of that kind. Rosecrans, McCook, Crittenden and Sheriden were swept away.

Then Longstreet said to himself, "The Union right is shattered and I need not follow them: I must crash the left of the army," and he began to crumple up the Union left, when Thomas, who was in charge, retreated to the Horseshoe Curve. There, with 25,000 men for six mortal hours he stood and repelled Longstreet with 60,000 Confederates, flushed with partial victory, mad for completing it, until 10,000 Union soldiers lay dead or wounded upon the field. Such another heroic defence has scarcely occurred in all history. It will stir the blood of any boy who reads it, no matter where that boy lives or what his sentiments are.

Gordon Granger was the only man who came to the rescue. He had 4,000 men located near the Rossville Gap. He marched to the battle at the sound of the guns without orders with four thousand men. The Confederates were about to flank the Union army left and right. Longstreet had just captured a valley which led to the rear of the Union forces. Gordon Granger came down and supported Thomas so effectively that in two hours one half of all his men were stricken to the ground. That saved the day. And then the army retreated to Chattonooga. You know the rest—how they nearly starved to death, how Grant relieved them, how they fought the battle of Missionary Ridge, bringing the great Confederate victory of Chicamauga came to naught, how Gen. Hill says that never again after that battle did the Confederate soldiers fight with their old-time vigor, their old-time courage and determination.

Now, that is a description of the battle. What could you do with similar things? Have the class make a map; read the various accounts of the battle; see what the military and political situation was; write it out in essay form. In this case the political situation was an important one, because the mountaineers of the Appalachians were Union men. They had been compelled to serve the Confederacy against their will. That was another reason why the Northern people were so anxious to capture that position.

One other point in this connection is worth mentioning. Shall the investigation be done by the class as a whole? I think that is not the best way. A better method is to do as they are doing in New York City and in many other places where they teach history. They divide the class up into groups of three, four, five or six, according to convenience, and give each group a problem. If there is a group of a half dozen they can divide the labor of drawing the maps, examining the military and political situation, following the movements of the armies, seeking who the leaders were in the battle, and summing the whole thing up. There is another chance for originality. Let them determine how they would present it to the class, and you have as many methods of presentation as you have groups. One will give it orally, by various members of a group; they will even devise methods of testing the class to see if they have mastered the lesson.

One gentleman in a normal school in Colorado has conducted a class for the entire term in that way. He has no recitations but those conducted by the pupils. It happens his pupils are candidates for teaching, consequently all of that is grist for their mill.

By having several groups in this way you can assign the various parts to the members. Let them work the details out, and every group will know at least one campaign thoroughly, will see it from beginning to end—the operations, the causes, and the results. I believe it is really better to know one military campaign well, than to get a mere text book knowledge of many, which after all is very meagre.

Another thing as important as method is this: What shall the problems be? If you are a teacher of Canadian history, what do you think you have to do—follow the text-book through in order to meet the examination? Well, you may if you think best, but I really don't believe that there would be an objection on the part of your inspectors or the examiners to something really alive. I know sometimes we have inspectors that would block any little game of that kind; here is an illustration: A Cornell graduate was teaching physics in the city of New York. The inspector came up one day and saw some apparatus which was unfamiliar to him. He asked, "What is that?" The teacher replied, "That is some apparatus for a little problem that the boys and I were working out together; they were interested in it, and I was; I thought I would let them solve it." The inspector looked severe and said, "Is that in the Syllabus?" "Oh, no." "Cut it out!" (Laughter.) We have fortunately not very many such inspectors.

What may these problems be about, aside from a military campaign? Well, I think American history ought to be attacked from about three standpoints: one from the West, one from the East, and one from the midst of the field. What kind of historical problems arise in the West? Our history in the States has been greatly modified by the sentiment of the West concerning cheap, not to say free lands. To mention a single instance—how that affected the slavery industry of the South. It affected cotton to such a great extent that the price came down from 30 cents when the Southerners were happy, to 15 cents when they were unhappy, and to nine cents when they were ready for revolt. The frontier did the mischief, but they thought that the Northern tariffs did it, and they protested. You know the history of nullification under Jackson. That was the beginning of the doctrine of States' rights. It was the real beginning of the sentiment that lead to the Civil War. But that influence came from the Western frontiers. Another influence from the frontier was so potent that even the Massachusetts men were compelled to adopt and prosecute a policy of wide-spread public internal improvements. They of the Mississippi Valley said, "Give us roads and canals that we may bring our produce to the market," and by and by, not content with that, they said, "Give us a protective tariff in order that we may bring the factory to the farm." So the protective tariff came against the protests of the South, oftentimes against the protests of New England, until factories sprung up all along up and down the Mississippi Valley. My own State of Illinois, which was made to be prairie of prairies and for agriculture, is the third State of the Union to-day in manufacture. Those things were all determined by the frontier. If you have any hopes or if you have any fears whether you will invite yourself or be invited to join the great Union below (laughter), let me caution you to look out for your frontiers, because they will decide the question for you; better give them what they want, especially when their wants run parallel with yours. The frontier is enormously important; it has made this country and it is going to keep on making it.

Then how are your boys going to understand the Revolutionary War, the French and Indian War that preceded it and all the troubles that have followed since? The key to the explanation lies in the colonial policies of Great Britain, of France, of Spain, and of Holland. These policies I should study according to the problem method. What was the colonial policy of Great Britain in those early days? What were its results? When that colonial policy—which was vastly different from that of France—came into collision with the French there followed the French and Indian wars. By means of such study we can understand what the French were about in this country; we can comprehend their relations to the Indian, and to the colonists to the South of them. These policies are the key to the understanding of all that history. So I would set those problems before them, and when they work them out, group after group, and compare the result, they are prepared to understand the great actions that took place in this drama of American history.

Looking at our history from within, what kind of problems may we set? One sort has to do with the debates of men before great events. If we wish to study the War of the American Revolution, read the speeches on this side and the other side; or if you don't like the speeches very much on this side, read the speeches on the two sides of the other side (laughter), and you will understand that war as you did not before. Of course, that is closely connected with the colonial policy of Great Britain.

If you want to grasp the causes of the great Civil War, in addition to reading the monographs and books of Prof. Turner, of the University of Wisconsin, read the speeches of Lincoln and Douglas before the Civil War; follow out the arguments, get at the heart of the thing, put the propositions down in parallel columns and compare them, and you will develop the insight that leads to toleration. A people who refuse to understand are likely to refuse to tolerate. (Applause.) If, therefore, I wanted to get the highest results of citizenship for my pupils from the study of history I would teach them in that way.

I do not advocate that this problem method should shut every thing else out, or that the regular routine of your exercises should be seriously interfered with. Go on with your work as before. It may be that some essentials may be taught by the problem method entirely, but where there are great stretches of territory to be covered it would be probably impossible to cover the ground that way. But if your students become alive on one point they are likely to be alive all over; the reverse of the celebrated pig in the clover, you know, "when he died he died all over." (Laughter.) If one of these students gets alive on one subject he will be alive all over. It is because these problem methods instruction generate life, develop, encourage, and stimulate mental activity that it seems to me we ought to profit by that fact. What do we hope to accomplish? What are to be the results? My theme last night was that physical work should be restored to education; my theme to-day is that internal work shall return to the class room—a work that arouses all the energies of the boy or girl, that builds the mind up and completes it.

When is your manual training alive and when dead? I will tell you when it is dead—when it is nothing but barren exercises. I visited a manual training school in Brooklyn the other day. The whole front of the building was full of exercises that somebody had made. I looked quizzically at the teacher. He said, "That is there for show. Many people who come into this room would not think we had any manual training unless they could see the exercises. Those are the things we do not make." (Laughter, applause.) Needless to say, that was a live school. The teacher picked up a piece of iron so long (indicates) and said, "With that exercise I could drive every student out of this school in three months; but look here," and he picked up an ornament for an andiron; it had half a dozen of those things in it. He said the boys made them all and they did it with the utmost joy; there wasn't a complaint, and why? Because they were doing a whole thing and not a piece of a thing. One of the most uninteresting places I ever visited was a dissecting room, in which things were taken apart (laughter). Now, that isn't an accident. Things are always uninteresting when they are taken apart; in that condition they fail to stimulate. Said a gentleman in Chicago to a manual training teacher, "I find lots of people here who can make all the different portions on a table, but I have not found one yet who has ever put them together. Here is a hundred thousand dollars for you: I wish you would take it and teach these fellows how to put things together." Mr. McMurray has been teaching the teachers of Chicago to make whole things and not pieces of things ever since. The bottom reason is this: when the whole thing is to be fabricated there is a problem, something to do, to think out; there are devices to be invented, in order to reach the end desired. I know that is so myself, because I put in my leisure hours during the winter in cabinet making. I come against problems all the time, and one of the greatest parts of my fun during the winter is to solve them. I worked all one season on a new design of a table such as nobody ever made before and probably nobody ever will make again (laughter), but it was intensely interesting, since it demanded thought and ingenuity. Manual training becomes interesting when you deal with "wholes" that allow the mind to work. One of my show cases is filled with the most beautiful exercises in iron and wood that I ever saw, they came from France—a brilliant illustration of how not to do it. Introduce your problem and let the mind work. It is only to the extent that the mind does work that the work is good.

How about your drawing? Why did I complain last night that my students were not interested in drawing, although every one of them had been trained for twelve years? Largely because it was perfunctory and artificial. It was nothing but representation, dominated by the idea of the technique as being the one end to be attained in drawing. It is one end, but not *the* one end. There is a difference. When does drawing become alive? The moment you put a problem before the pupil. Then it is delightful and the children will even neglect their other lessons in order to draw. Superintendent Brooks, of Boston, told me the other day that his child nearly failed in French because she got so intensely interested in drawing her hat. (Laughter.) To make drawing alive put the problem into it, and just see them work! You can almost see the mind grow when it is doing that.

There is nothing we do in the school that should not be permeated with this as an objective principle. You notice I fought shy of English. I have not said a word about it because I was afraid of adding to the universal confusion. It may be that we can rescue even English. It is a subject without organization, and objectivity of method. It is like the Russians. Dr. Andrew D. White says that whenever you get two Russians together, there you have three opinions in the midst of them. (Laughter.) Whenever you have two English teachers together, you have three opinions of how it ought to be done. It is one of the things I hope to be able to live long enough to see—the organization of English into some sort of objectivity of method. I say to my students, "There is a problem for you if you want one; find out how to teach English so that somebody else will agree with you." (Laughter.) I believe that even in English you could set some problems that could keep people alive. I can imagine certain problems in this subject that would have greatly excited me, and I believe would interest children everywhere. What would have happened if the Prince of Morocco in "The Merchant of Venice" had chosen the right casket? You know he chose the wrong one, and Portia said, with a sigh of relief,

> "Let all of his complexion choose me so."

What course would she have taken? Would she have gone with him? Would it have spoiled the story? Suppose the Jew had received his pound of flesh, how would the play have ended? What would a modern woman say when Bassanio chose the right casket? (Laughter.) Portia wished she was

"A thousand times more fair, ten thousand times more rich." Did Bassanio use a method which would be tolerated to-day for paying his debts? (Laughter.) These things might be of interest to students. A thousand problems arise, spring up in one's mind, the moment one begins to think about them; problems in construction, in composition. Superintendent Brooks' new book on rhetoric has been adopted in nearly 700 schools in New York State, and it abounds in problems to be solved by the student.

So I commend this idea to you for the sake of enlivening your work; in every subject, in every grade, introduce now and then the problem form of instruction. (Applause.)

Dr. Burwash: I have much pleasure in tendering the thanks of the Association to Dr. De Garmo for this exceedingly interesting and instructive lecture. I am sure the entire body of teachers have received new light on their work and will have new success as the result of that new light.

(Resolution carried with great applause.)

Thursday Evening, April 15th, 1909; 8 o'clock p.m.

MR. COLQUHOUN, DEPUTY MINISTER OF EDUCATION.

Mr. President, Ladies and Gentlemen: It gives me great pleasure to address this Association because I have come to recognize its usefulness and its influence. I think, too, that you are happy in your place of meeting (hear, hear), and that the University authorities are well advised in giving you these handsome and well-appointed quarters for your annual Convention. (Hear, hear.) It is a display of unity which should exist in all branches of the educational system. It is emblematic in its way of a union of forces. I sometimes think that primary and secondary education receive more of their share of uninstructed criticism than the universities do, and it may be, when you have a common meeting place and are more closely associated together, that the time will come when nothing will be above honest and searching criticism, not even a university. You are happy also in the publicity which attends your gatherings, because subjects of this kind, have everything to gain and nothing to lose from public debates. In this respect you set a good example to the other professions.

The work of this Association and the publicity which attends its proceedings were well exemplified yesterday when the High School Delegation waited upon the Minister of Education. It has been my lot in the last twenty years to be present when many deputations were presenting their grievances to Government, and the deputation of yesterday conducted itself with great dignity and expressed its views with marked clearness. It seems to me that the answer which was received from the Minister of the Crown was an excellent proof of the value of direct and open communication. (Applause.) I am perfectly satisfied that the influence which this Association exercises in that way will be far-reaching and paramount, and that when the record of the last four years comes to be embalmed in some documentary history, you, and those who survive you, will be surprised at the way in which the Association has helped to mould the educational policy of the day. The Department, let me say, Mr. President, is entirely satisfied with your proceedings in these respects. It welcomes suggestions. The Minister is not the only one who is glad to meet the teachers, and, although you may not think so to look at us, the officials of the Department are very humble and anxious to please. (Laughter.)

I was present last year at a school gathering addressed by some former teachers. One of them had taught in a grammar school, and as there were other teachers present he condoled with them upon their unhappy lot. He said, "Your lot is not nearly as comfortable as ours was in days gone by; you have so many regulations, and you have so many inspectors. Why, when I was a young teacher we scarcely ever saw an inspector. The regulations were few in number and we never observed any of them." (Laughter.) I am glad those times are gone forever. It is inevitable that as a system expands the duties entailed and the functions to be performed will multiply. A time of "no change" means a time of stagnation. (Hear, hear.) Still, I do share occasionally the desire of the teacher for the arrival of the day when the statutes shall cease from troubling and the regulations be at rest. (Laughter.)

At the close of a convention like this it is not easy to present a subject which has not already been fully debated by you in some form or other. The vitality of the Association and the representative quality of its members are warrants that the field has been pretty well covered by discussion. To one in my position it only remains to offer at the closing meeting a few reflections which may have at least one special claim to consideration—the fact that they emanate from a man who is, in a sense, detached both from the ranks of the teaching profession and from the administrative functions represented here by the trustees. While keenly interested in both the professional and administration sides of education, I have faithfully tried to avoid the special enthusiasms—and perhaps also the special prejudices—of either; to avoid asserting my lofty right to speak for the public or for the teachers; but anxious to be of service to the cause of education rather by reason of impartial interest in all its branches than by vainly attempting to set up as an authority in some particular branch. Specialization, valuable and necessary as it is, has this disadvantage, that it may hamper the forming of just conclusions on large questions. Such a tendency, if unchecked, would produce bad results. It is the duty of those who, like myself, are officially connected with educational administration in the broad sense, to cultivate a wide outlook, to appreciate the public point of view at every turn and to hold absolutely aloof from what we usually term party politics. The educational situation in Ontario is well adapted to the application of these views. We have amongst us various races, various creeds and almost every shade of opinion. To win the confidence of all we must, if possible, master the common point of view. The attitude of mind formed in such an atmosphere is bound to be one of sympathy towards all parts of the system. This, at least, is the aim I have kept before me.

In education, no difficulty is greater than that of enlisting public support in behalf of reforms. We must make progress. We must carry the public judgment with us. We should avoid, as the plague, the tendency to mere bureaucracy. On the other hand, we should fearlessly declare for advanced ideas regardless of ignorant clamour. It will soon subside, for nothing is clearer in recent years than the readiness of the people to respond to urgent appeals, honestly made. Compulsory education means an educated democracy, and, in this stage of the world, to think of any other system of government as permanent is absurd. The Provincial Department of Education, quite as much as a particular school board, must therefore place its chief reliance upon enlightened public opinion. The statutes emanates from the Legislature, but behind the Legislature is the great mass of the people. With these it is necessary to keep closely in touch. Serious sacrifices are demanded of them. The cost of education in Ontario last year was $9,500,000. This burden will increase, not diminish. It is the price paid for national efficiency. Canada cannot afford to lag behind. Since we have a great heritage, we have equally large responsibilities. To keep abreast in education of communities like Germany and the United States, we shall be forced, for years to come, to make unusual exertions. There are many competitors for public favor. Every man thinks his special interest or profession has the first claim on public money. With one, it is railways. With another, mining development. With another, public parks, and so on. All are worthy undertakings, but surely education is the cause of us all. It should occupy the first place in any programme of legislation. Next to the moral welfare of the community, it ought to be considered the supreme question.

Now, there are occasional disquieting evidences that the public mind is not yet fully alive to the actual conditions that face this country. I admit cheerfully the encouraging elements in the situation. The school boards are for the most part alert and intelligent. Heavier expenditures are being incurred with a good deal of philosophy. There are signs that in the matter of the salary scale the trustees are beginning to awake from a long and comfortable sleep. The press is actively enlisted on the side of higher efficiency. Despite these favorable symptoms, we dare not ignore the fact that purely material interests have a powerful hold upon the public imagination. A new railway can easily push aside a new school in popular discussion. The various projects of a money-making age, the tendency to luxurious living, the preference for speculation rather than hard work, are all making for the notion that a nation should first amass wealth, and afterwards cultivate its intellectual faculties and its artistic tastes. Such notions are mischievous, but they are easily propagated and they die hard. This country has still much to learn in generous support of teachers, in extending the period for compulsory schooling, in enforcing the laws regarding truancy and in making high school education free. Let us not blink the facts. There is poor consolation in forming ourselves periodically into mutual admiration societies. Much remains to be done and one of the first of the duties that confront us is to work courageously for the reforms to which Ontario is already committed.

The chief reform has to do with the training, the qualifications, the status and the pecuniary rewards of the teacher. It is unnecessary to enlarge upon the great importance of professional training. There is in some quarters a disposition to make light of it. One of the most formidable of the tasks which fall upon the officials of the Department is the duty of enforcing the laws regarding education. Curiously enough, the laws which seem to meet with more resistance than others are those of the utmost value and consequence to teachers themselves. That teachers who make sacrifices to improve their qualifications and attain the highest standing are entitled to the security the law and regulations confer upon them is surely an undeniable proposition. When vacancies occur in the schools they ought to be filled by qualified teachers, not by those who lack legal qualifications and hold only temporary certificates. In insisting upon the rights of the qualified teacher, we are fighting his battle for him. There are, it is true, circumstances in which a school board cannot for part of a term secure on short notice a qualified teacher. But is it unreasonable to demand of boards the same diligence in staffing their schools that they would show in their own business? If a trustee required an accountant for his own office or factory, would he be satisfied with an expert carpenter or a skilful gardener? One can fancy the language he would employ if one of these useful functionaries presented himself for a book-keeper's vacancy and urged that his energy, his natural endowments and his general familiarity with office routine were of such a character that he would do the necessary work well.

Now, it is probably no secret to you that the Department is constantly being requested to wink at the employment of unqualified teachers, and when these requests are refused—as civilly as politeness demands—there either ensues a brisk correspondence that adds greatly to the postal revenues or there comes upon the scene a distinguished deputation with looks of portentous gravity and arguments calculated to make the worse appear the better reason. Not long ago a deputation of this kind waited upon the Minister of Education. It consisted of influential and important personages well-known throughout the Province. Three of them at least were worthy representatives of learned professions which allow no unlicensed persons to practice and which are vigilant to impose the pains and penalties provided in such cases. The teaching profession has an equal right to be protected in its undoubted privileges, and the fact that the public interest is best served by obligatory professional training is as true in respect to education as it is of law or medicine. (Applause.) There may be another side to the whole question, but I am not going to argue that now, because we are bound to recognize that in all advanced communities, teaching has come to be regarded as a practical science based on laws and principles, on a right knowledge of human nature, on a true psychology and physiology, on philosophy, on history, on experience. Ontario adheres to this view and has taken an important step in substituting Normal for Model Schools. The wisdom of providing well-trained teachers for all our primary schools will not be challenged. To attain this end, however, the old system, with its facilities for enabling young men and girls to make teaching a stepping stone to other walks in life has been wiped out. We have taken a distinctly forward step and should not be hampered by petty criticisms and by the raising of minor issues. Let me speak plainly. No one is doing a service to education who encourages a town or village to believe that it has suffered a wrong by losing a Model School. Agitations of this kind are contemptible. No one is doing a service to education who believes that the statutes and regulations can be capriciously set aside for the benefit of particular individuals. An impression seems to prevail in some minds that pressure brought to bear in the right quarter can secure immunity from rules which work well in general application, but may perchance inconvenience a few. The medical and legal professions are not beset to the same extent by querulous complainings—or, if they are so beset—their governing authorities turn a deaf ear to idle complaints. How could they maintain the honorably high standard that distinguishes them if they did not enforce their regulations with firmness and courage? Let teachers themselves set the example, as most of them now do, of upholding the regulations that govern their own profession and they will soon realize the gain that comes from recognized authority and a high professional standard.

So, to, in respect to the reorganization of the inspectorate, the raising of the qualifications of the inspectors, the development of the system of approved schools, and the gradual modification of the examination system. All these educational reforms, to be beneficial, must be carried out with firmness and integrity. (Hear, hear.) They will involve some sacrifice. They will call for increased labor, and a higher conception of duty. They may not be framed in perfection and may need amendment as time goes on. But no advance is ever made in any branch of activity without inconvenience, without a certain amout of strain and without dislocating some hard and fast prejudices. To conquer these difficulties by patience, wisdom and insight is the true policy, and I am satisfied that the teaching profession will loyally do its share in promoting the best interests of education.

As time goes on, the teachers' responsibilities will, I believe, grow heavier rather than lighter. More is expected from the school, both by the parent and by the State than in strict justice we should expect. There is a popular demand for training that shall in an elementary way fit the child for the battle of life in the various employments of an industrial era, and there is an idea abroad that the school, instead of the Church and the home, should be the chief influence in moulding the moral character and the conduct of young people. How far these expectations are reasonable, and to what extent they can be met are questions of great importance. But the fact is, that the teaching profession has already answered them. The school is happily recognized as one of the strongest influences now at work for the moral and religious welfare of this country. The teaching body, men and women, has proved itself equal to the complex demands made upon it, and the community should see that services so vital to public well-being are adequately rewarded. In none of the professions is the scale of remuneration so meagre. In none of them is there less personal effort put forth to obtain higher salaries. We should make the profession attractive. It is perfectly natural for young people of both sexes to desire to reap a fair share of prosperity. The temptation to adopt commercial careers or to enter the other professions is sure to present itself to those who are conscious of talent and anxious to exert it to the best advantage. You may think that my argument lays too much stress upon the purely material and sordid side of things. You never hear these sentiments from the teachers themselves. I wish to say for them what they are too modest to say for themselves. Not being a teacher, I consider it a duty to point out from a perfectly impartial standpoint that if we fail to make the profession permanent and prosperous the result will be a public calamity.

Perhaps it will be said that we can never hope to see the material rewards of teaching equal to those of other occupations. That is true, and it leads up to another highly important consideration —the establishment, as soon as possible, of a superannuation system. (Applause.) Not being able to save as much as other people, the teacher should be able to look forward to a retiring allowance. Your committee, through Principal Scott, has reported that steps have already been taken by the Minister of Education to secure an authoritative report on the subject. The enquiry will be thorough and is being conducted by a skilful accountant whose conclusions will carry weight with the public at large. It cannot be attacked as a scheme by teachers to add to the Provincial burden. The data now being collected will enable the Legislature to consider the measure in a practical, business-like manner. A long step in advance will be taken should the result be a system of superannuation for the benefit of those who have earned it.

Let me say in conclusion that I wish you and your Association a very successful year. (Applause.)

COLLEGE AND HIGH SCHOOL DEPARTMENT.

SECONDARY SCHOOLS OF ENGLAND WITH SPECIAL REFERENCE TO THE SCOPE, CHARACTER, AND METHODS OF TEACHING MATHEMATICS.

U. J. Flach, Napanee.

General System of Education.

The educational system of England is not blessed, or rather not cursed, with uniformity. The Board of Education created by the Parliament and corresponding to our Educational Department has general control of matters pertaining to education, but delegates its powers to the Local Education Authority. Under section 1 of the Education Act, 1902, the council of every county and of every county borough becomes a Local Education Authority. Thus the county council or even the corporate town or township has almost full control of the educational affairs of the district. This act has three main objects: The promotion of public secondary education; the abolition of school boards, whose powers were transferred to the councils of the counties, boroughs and larger urban districts; and the support of the voluntary schools from local rates. The county councils or these county boroughs appoint education committees which vary in number and in the qualifications of its members. Here are two examples, (*a*) At Nottingham, the Education Committee consists of 32 members, 24 of the Council, and 8 co-opted (including two women) as persons experienced in education and acquainted with the education necessary for the development of the trade and commerce of the city. An annual election. (*b*) At Manchester, the Education Committee consists of 32 members, 20 of the Council and 12 co-opted (including at least two women) as persons experienced in the management or administration of elementary education in provided and non-provided schools, of Secondary Schools, of Technical, Commercial, and University Education. An annual election.

Schools belonging to the municipality are generally governed directly by the Local Education Authority, but many endowed and private schools called non-provided schools receive local grants besides government grants and these are governed by a Board of

Managers composed of two members appointed by the Local Education Authority and four representing the original foundation. Thus, these non-provided or Voluntary Schools, although their actions are subject to the approval of the Local Education Authority, wield a great power as they have control of the religious instruction, the actual management of the school and the appointment of teachers. Although the consent of the Local Education Authority is required for the appointment of teachers, yet this consent may not be withheld except on educational grounds. It is a sad state of affairs but it seems to be general throughout the country that a teacher has no chance of appointment to any of these schools unless his religion coincides with that of the majority of the Board of Managers, or in other words, of the school. This state of affairs caused, and is causing, much opposition to the educational policy of the country. In 1906 the Liberal Ministry brought in an Education Bill, but the House of Lords made amendments to it so that the religious character was more pronounced that before; so the measure perished.

All Secondary Schools are required by the Board of Education to have a Board of Governors and this is often a Committee of the Local Education Authority.

Schools Doing Secondary Education.

There is a difficulty over the use of names, for educational terms have not yet received exact definitions. Grammar Schools and High Schools are generally denominational and although many are still private, being sustained by the endowment and high fees, others have come under the Local Education Authority and are governed by a Board of Governors, but on this Board the members appointed by the Local Education Authority are in a minority. The term Grammar School, although it generally implies a certain form of curriculum and the existence of an endowment, has yet been applied to many schools not endowed and not following the standard Grammar School course. The term College is used without any attempt at exact definition; the great majority are under private management. "High School" seemed a misnomer to me, as the first one I entered gave me a surprise when I stepped into a room where Kindergarten work was going on. The High School for girls at Manchester is intended for girls from the age of 5 to 19. Boys between the age of 5 and 9 having sisters in the school are also admitted. Among the regulations of this school is the following: "Pupils, while attending school are required to wear a suitable sailor hat, with the school ribbon, and are forbidden to wear unnecessary ornaments." The schools in England are almost always Boys' or Girls' Schools; there are some dual schools, but in these the boys and girls occupy separate class-rooms. Many of the teachers had a look of consternation when I informed them that all our schools were of the mixed type. One Mathematical Master (evidently a confirmed bachelor) said, "But how can you manage to keep the girls from flirting with the boys?"

Eaton, Harrow, Rugby and the other great public schools stand in a class by themselves. They are boarding schools and filled with boys of the upper classes. Their chief object is to fit for Oxford and Cambridge.

Grammar Schools and Provincial Universities are mostly used by people of the middle ranks in life, while public elementary schools are used little except by the working classes.

SECONDARY SCHOOLS.

A Secondary School to receive grants must give an education of wider scope and higher degree than that of an Elementary School, and give a course of instruction in the subjects necessary for a good general education for pupils from 12 to 16 or 17, with proper organization, staff, curriculum and equipment. Provision may be made for pupils below the age of 12. An adequate proportion must remain at least four years in the school and an adequate proportion must remain up to and beyond the age of 16.

Maintenance. The schools are mantaned by (1) Fees—these generally run from £2 to £5, while the fees in Grammar and High Schools go from £10 to £25; (2) Grants from the Board of Education—a grant of £2, on account of each pupil over 10 and under 12; £5 for each over 12 and under 18. For the purpose of estimating these grants the number of registered pupils on October 1st, February 1st, and June 1st, will be taken and the grant will be paid on 1/3 of the sum of these numbers. The Board may withdraw the grant if the school ceases to provide an education suitable to the circumstances of the locality. (3) Rates from the Local Education Authority; this rate, of course, varies from year to year, but those schools not belonging to the municipality but under the regulations of the Local Education Authority receive a fixed amount.

Entrance. The conditions of entry into Secondary Schools vary in almost every centre with a Local Education Authority, with the exception that a boy or girl must be 10 years old. In many places no examination is held and no fixed standard of education is required. In some places the standard is fixed by the head-master or by the Local Authority. If any examination is held it comprises two papers, one in Elementary Mathematics and one in English. Candidates must be under 14 or take a more advanced examination, which includes Algebra and French.

Free Places. In all fee-charging schools a proportion of free places must be open in each year to pupils entering from Public Elementary Schools. This proportion will generally be 25 per cent. These free places or scholarships are often restricted to candidates from a particular area, and nearly always to those between the ages of 10 and 12. A large proportion of children in all Secondary Schools come from private schools. The fact that the Secondary Schools are not gratuitous, but have a limited number of free scholarships tends rather to break down than to perpetuate a separation of social classes as their scholarships allow children of the working class to continue their studies.

Organization. The staff must be qualified and sufficient in number; the number of pupils in a room must not as a rule exceed 30, and must in no case exceed 35.

Discipline. There is as a rule little trouble in discipline as the classes are small and the children come from the homes of the better classes so that good behavior and respect for authority are second nature to them. The headmaster has the power to punish his pupils and also generally possesses and exercises the right to expel an unruly child. This is of enormous value to the teacher, as expulsion is considered a dishonour to the family. Thus corporal punishment becomes less necessary. In the Elementary Schools no general right of expulsion exists as the attendance is compulsory.

Teachers. The head-master has great scope and wields much power. No authorized text books are forced upon him, as he has the right to introduce any book. He also arranges the time to be given to every subject in his school. In most schools the assistants are appointed and dismissed by the head-master; there is, however, widespread dissatisfaction with regard to this method under which the assistant-master becomes as it were, the personal servant of the headmaster, liable to be removed by him at pleasure and liable to find his tenure of office abruptly terminated on the removal of the head-master.

All teachers must be employed under written agreements. The Inspector may call for these on visiting the school and if members of the staff are serving without written agreements the Board may refuse to recognize such teachers as part of the staff and the grant would be in jeopardy. In regard to salary also the head-master is to be envied, the assistant pitied, as the former receives from $2,500 to $5,000, while the assistant scarcely ever gets more than $1,200. The salary paid during illness varies in different parts. Generally it is full pay for three months, or for the first two months full pay and for the second two months, half-pay.

Examinations. If a good student enters at 10 or 12 and continues there till 16 or 17 he is usually successful in passing the examination for entrance to a University. An additional two or three years enables the matriculant to pass the Teachers' Certificate examination. This examination is usually taken at 20 or 21 years of age. Pupils from Secondary Schools do not take the Teachers' Certificate examination while they are at these schools. They enter a Normal College or University for this. A University degree now covers the Teachers' Certificate examination, so that all graduates are permitted to teach.

Pupils under 15 years of age may not, except with the express permission of the Board, be presented for any external examination, except one which comprises the whole school; that is the Board may at any time require the school to undergo an examination to an examining body approved by it to find out if the school is efficient.

Curriculum. The curriculum must provide instruction in the English language and literature, at least one language other than English; Geography, History, Mathematics, Science, and Drawing. Provision should also be made for organized games and suitable Physical Exercises, for Manual Instruction and for Singing. For the girls over 15 years of age a course in Domestic Subjects may be taken instead of Science.

The syllabus in Mathematics for the Nottingham Secondary Schools is:

1st year:

(*a*) Arithmetic, Measures and Multiples, Vulgar and Decimal Fractions, Metric System, Ratio and Proportion, Percentages and Simple Interest, Profit and Loss.

(*b*) Algebra—Numerical Values, Four simple rules, Factors and their application to L.C.M., and G.C.M. Simple Equations.

(*c*) Geometry—Lines and Angles, Rectilineal Figures.

2nd year:

(*a*) Arithmetic—work of first year with proportional parts, Averages, Exchanges, Chain Rule, Square Root.

(*b*) Algebra—harder factors, Fractions, Simultaneous Equations.

(*c*) Geometry—Areas of rectilineal figures.

3rd year:

(*a*) Arithmetic—discount and present worth, stocks, profit and loss, areas of triangles, quadrilaterals and circles (use of logarithms in arithmetical calculations.

(*b*) Algebra—quadratic equations, indices, surds and logarithms, indentities and transformations, cyclic order, square root, Graphical algebra, axes, co-ordinates, plotting of a point, graph of a function.

(*c*) Geometry—circles.

(d) Trigonometry—trigonometrical ratios of an angle.

4th year:

(*a*) Arithmetic—generally, omitting cube root.

(*b*) Algebra—ratio and proportion, Binominal Theorem (positive indices) arithmetical and geometrical progressions.

(*c*) Geometry—squares and rectangles, geometric equivalents of certain algebraic formulae.

(*d*) Trigonometry—to solution of triangles.

Matriculation.

The curriculum for Matriculation depends upon the University, but a certificate of having passed an examination is generally accepted by any of the Universities and exempts the candidate from the subjects taken by him. The Board of Education also accepts the Matriculation Certificate for the purpose of admission to Training Colleges. The London Matriculation is generally considered the hardest of the entrance examinations, not altogether on account of the difficulty of the syllabus, but on account of the standard of attainment. The candidate must reach a certain minimum percentage of marks in every subject, otherwise he fails altogether and must take the examination *de novo*.

The work generally is.

1. English Language or Literature, English History.

2. Mathematics.

3. Three of the following, one of which must be a language: (*a*) Greek, (*b*) Latin, (*c*) French, (*d*) German, (*e*) some other language, (*f*) Elementary Mechanics, (*g*) Chemistry, (*h*) Geography, (*i*) Natural History. For the Faculty of Medicine the only difference is that Latin is compulsory.

The syllabus in Mathematics is:

1. Arithmetic.

2. The Elementary Geometry of triangles, parallelograms and circles and of similar rectilineal figures.

3. Algebra to quadratic equations with the arithmetical and geometrical progressions and an elementary treatment of irrational quantities and of proportion.

The work in Mathematics for the higher alternative papers (our Honour Matriculation) is:

1. Trigonometry to solution of triangles.

2. Algebra to binomial theorem, graphs of simple algebraic functions of x.

3. The Analytic Geometry of the straight line and circle. Elementary properties of the parabola and ellipse.

4. Pure solid Geometry of straight lines and planes.

REQUISITES FOR A TEACHER.

The Board recognizes the following grades of teachers:

1. Pupil-teachers are not required by the Board to have passed a qualifying examination. They spend part of their time in receiving instruction with a view to qualifying as teachers of a higher standard, and part in teaching under supervision. They must be over 16 and under 18 and the period of a pupil-teacher is generally two years.

2. Supplementary teachers. The only qualifications necessary for these is to have been under efficient instruction for some time after the age of 14. They must be over 18.

3. Student teachers. Those who, as bursars, receive assistance and are then recommended by the Local Educational Authority as part of the staff of a Public Elementary School. Three years must have been spent at a Secondary School.

4. Uncertificated Teachers. Those who have passed the non-professional examination, but have not attended a Training College.

5. Certificated teachers. Who have both the non-professional and professional standing.

Before the Board can give its consent to the recognition of any of these the candidates must be approved by the Board, who will require to be satisfied that they are suitable in respect of character, health, and freedom from personal defects, and that they have been vaccinated. Candidates for any of these positions are offered considerable advantages by the Local Education Authority and also have a great part of the cost of training defrayed by the Government. A pupil who wishes to receive aid from the Local Education Authority must, with his parent, sign a declaration of the *bona fide* intention to become a teacher, while for admission to a Training College he will in return for the grants paid for his training guarantee to complete the course of training and thereafter to teach for seven years, in the case of a man and for five years in the case of a woman in a school receiving grants under the Board's regulation. If the student fails to fulfil his contract he binds himself to repay the Board the cost of his training.

CHARACTER AND METHOD OF WORK.

The blackboard work of the pupils in which we in Ontario take so much pride is unknown in England. Each class-room has an easel on which a blackboard about six feet long and four feet wide is placed. In a simplifying question in Algebra the teacher had to rub out parts twice in order to be able to get enough room to finish the question. No scribblers are used by the pupils, but all the work is done with pen and ink in neat notebooks. The writing in these is excellent. A feature of many schools is that everything is left to the honour of the pupil; no definite amount of Home-Work is assigned, but it is expected that the pupil will do what is right. They say, "work each boy to the utmost that he is capable of. All we demand of the boy is that he work to the limit of his capacity." In the morning the Mathematical Master takes the note-books and looks over the work done by each pupil. This is possible as the classes are generally small. It necessarily follows that the class does not work together, the clever pupils being in advance of the others. The same question must in these cases be explained ten or twelve times at least, but their reasoning is that the pupil would derive very little benefit, if any, from having a question worked unless he thoroughly understood every step before that. In one class I examined five note-books and each one of the students to whom these books belonged was working at a different question. The work seems to be taken up in a superficial manner, the general formula is worked out and then several examples bearing directly on this formula are given.

All work is done carefully and it was a pleasure to look at a few books of the year before, which contained a year's work. Our pupils would do three times as much writing on the subject, but the writing and form could not be compared to that done in the English schools. Yet even at this slow rate the pupils are farther advanced in Mathematics than our pupils of the same age. Most of the pupils attend the school for a general education and have no examination to look forward to, while only a few of the clever pupils take the Matriculation examination. In one of the best Municipal Secondary Schools that I visited the attendance is 834, all above twelve years of age and fourteen pupils from this school passed the Matriculation in 1908. The plan pursued in the English school seems to give the pupil a general idea of an extended course, while we with our examinations ahead of us must iterate and reiterate.

It will thus cause no surprise when I state that in several forms where the majority of the pupils were under fifteen years of age, trigonometry was being taught. It is difficult to compare the English and Canadian systems; in the first place a smaller per cent. of the population receives a Secondary education in England than here. In Ontario about 13.5 out of 1,000 of the population receive a Secondary education, while in England it is about five out of every 1,000. In the second place their system of extensive, rather than intensive, study is well adapted to their schools where such a small proportion ever compete at an examination. In conclusion I wish to state that many of the English schools are excellent, while others, notably, many of the semi-private schools are poor, very poor.

If England makes as much progress in education during the next seven years as she has made during the past seven, then the school system will be well nigh perfect.

SECONDARY SCHOOLS OF GREAT BRITAIN.

W. J. SYKES, B.A., OTTAWA.

Before giving some impressions about the English and Scotch Secondary Schools, I wish to mention the kindly reception that the School Boards and teachers in the Mother Country gave to visiting brethren from Ontario. In several large cities, Liverpool, Glasgow, Edinburgh, and Manchester, the school board prepared and had printed a special handbook describing the education work under its direction. In the board room, busy men could always find time to explain features of the system they controlled, and to answer questions about the working of particular points. In the schools, I found a courtesy, a readiness to afford every means of becoming acquainted with their aims and methods, that must, at times, have involved sacrifices on the parts of heads and masters. And from my experiences I feel warranted in conveying to you a message of sympathy and good will from our fellow-workers across the sea.

So many features of the British schools are of interest that it is not easy to know what to touch on in a short paper and what to omit. First, however, I shall mention some general features of organization and management, and then I shall take up some particular points regarding the teaching of English and foreign languages.

About two months ago Dr. Merchant, while chatting about educational affairs in Ontario, remarked: "If I were asked to criticize our High Schools and Collegiate Institutes I should point out three defects: first, there are not enough teachers in proportion to the pupils,—the schools are undermanned; second, arising from this first condition, the teachers are overworked,—they have so many exercises, compositions, etc., that they have not time for self-improvement or social service; and third, the *pupils* are overworked,—they are required to study too many subjects at the same time." Have the English and Scotch schools anything to teach us in these respects?

First, as to proportion of teachers to pupils, our English and Scotch educators have definite convictions, which they express with remarkable uniformity in the working out of their system. As one head-master put the matter, "Our classes must not exceed thirty pupils, and our schools must have one teacher to every twenty pupils." This statement was amply confirmed by figures obtained from thirteen representative schools, some English, some Scotch, some for boys alone, some for girls alone, some co-educational. In Rugby, where the proportion of masters to pupils is very high, there is one master to every fourteen boys; while in Westminister city school, right in the heart of London, (where the proportion is lowest of the thirteen) there is one master to every twenty-four boys. The largest school I visited, Boroughmuir municipal Secondary School in Edinburgh, has 62 masters for 1,315 pupils, about one to twenty-one. To emphasize this matter, which is a most important one, let me quote the figures given by the heads of several schools,

1. Liverpool Institute, (boys); 620 pupils, 33 masters.
2. Glasgow High School, (boys); 900 pupils, 44 masters.
3. Manchester High School for Girls; 540 pupils, 35 masters.
4. Manchester Municipal Secondary School (co-educational); 900 pupils, 48 masters.
5. Boroughmuir Secondary School, Edinburgh, (municipal and co-educational); 1,315 pupils, 62 masters.
6. Westminister City School, London, (boys); 570 pupils, 24 masters.
7. Oulton Secondary School, Liverpool, (municipal and co-educational); 502 pupils, 30 masters.
8. City of London School (boys); 700 pupils, 39 masters.
9. King Edward High School for Boys, Birmingham, 470 pupils, 25 masters.
10. Waverly Road Municipal Secondary School, Birmingham, 450 pupils, 23 masters.

Not only are the classes small and these at times divided for some subjects, such as laboratory work, French conversation, and English composition, but the masters have a moderate allowance of periods free from teaching, to be used in consultation with pupils or in marking exercises. To be definite, I found that out of a week of thirty teaching periods, masters teach from twenty-four to twenty-six periods.

In regard to the third point—an overloaded curriculum—I am not sure that we have anything to learn in Great Britain.

A few additional general notes on English Secondary Schools may prove of interest.

1. As a general rule the Secondary Schools, even in large cities are comparatively small. Out of thirteen city schools seven had an attendance of under 600 and one more had only 620. Several head-masters pointed out this feature with some pride, believing that therein lay a superiority over the huge Secondary Schools in American cities. A school, they say, should not be allowed to become so large that the head-master cannot know personally each pupil.

2. Again, the British Secondary School men lay a good deal of stress on getting a boy in early. "I am strong on the point of

getting boys in by eleven and keeping them for five or seven years," said the head of the City of London Boys' School. "When you have a boy for six or seven years you can make something of him." As a result of this earlier beginning of the Secondary School work, I believe the average English boy of eighteen who is going up to University is better educated that the average Ontario boy who matriculates at this age can hope to be.

3. Manual Traning for boys and Domestic Science for girls, I found without exception in the lower forms of the Secondary School. In Manual Training the equipment is generally quite modest and inexpensive when compared with the elaborate and expensive equipment of United States schools. As a rule in England the Manual Training course seems to be limited to working in wood, though in a few places metal work is also taken up.

4. The examiners of the Oxford and Cambridge Locals, (perhaps the nearest approach in England to our Ontario Matriculation) publish a rather full report on the papers they have read. For example the report on the examinations of September, 1907, published in *The School World* (Macmillan & Co.) under the title, "Hints for Teachers," dealt with each paper and contained about 2,600 words. Would such a full report on our July examinations be of advantage to our High Schools and Collegiate Institutes?

5. In many Secondary Schools there is made a systematic effort to retain pupils for a full course of at least three years, and to discourage from entering, those pupils who have only one more year to attend school. Let me illustrate by reference to three cities. In the prospectus of the Secondary Schools of Birmingham is found this passage: "It is of very great importance that pupils should, as far as possible, remain until the completion of the school course, for in that way only can they secure the greatest benefit." And again: "The importance of pupils remaining at this school to complete the whole course of instruction cannot be too strongly emphasized. The last two years of the four years' course is the period in which the real benefits of attendance at this school are obtained." In the prospectus of the Municipal Secondary School of Manchester we find these words: "Pupils are not admitted to the Municipal Secondary School concerning whom there is a reason to suppose there is no real intention that they shall take advantage, circumstances permitting, of the full course of instruction. This school is not to be regarded merely as a

finishing school for pupils coming for a short period." In Edinburgh parents or guardians of applicants for enrolment in the Secondary Schools have to fill in a form of application for admission, part of which form reads, "and I hereby undertake that he (or she) shall attend regularly and punctually until he (or she) completes the third year of the Higher Grade Course."

6. Another detail that is, I think, not common in Ontario is giving each class a time-table of homework. For example this is the homework time-table of a Matriculation form in the City of Westminster Boys' School, London.

"Pupils are expected to spend from 2 1/3 to 3 hours an evening."

Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
Latin or German	Mathematics	Latin or German	Mathematics	Scripture
History	French	English	French	Latin & German
English	Chemistry	Mathematics	Physics	Mathematics
				Geography

The homework assigned is, in this way, regulated and more evenly distributed; and in some cases this plan might prove of distinct advantage to pupil, teacher and parent.

"In teaching of English America leads the way," said several English and Scotch teachers. In Composition, in several of the best schools I found American text books used—such as *The Mother Tongue, Part III.* As to methods and training in speaking and writing English, our teachers are probably doing as good work as the British teachers, although their pupils probably need less help and practice than ours, because of the better standard of English spoken in the homes and employed in the periodicals.

In English *Grammar* one text book is a prime favourite throughout the island, Nesfield's English Grammar, Macmillan & Co.

In *English Literature* courses vary a great deal. Many of these I copied down, and while finding them suggestive I have difficulty in drawing general conclusions. Broadly their courses resemble ours; they read (1) some prose, (2) some collection of shorter lyric and ballad poetry, and (3) some longer narrative poems or dramas. In almost all of their courses Milton's companion poems, L'Allegro and Il. Penseroso, find a place. When I showed our course in the Ottawa Collegiate Institute to the English Master of a large training school in London, he said, "I think you are making a mistake in leaving off L'Allegro and St. Penseroso. Those two will give the pupils an idea of pure poetry." Of the many excellent, cheap series of texts issued by the various publishing houses, one may be singled out for special mention. It is called the Arnold Prose Books—little pamphlets of 48 pages, published at 2d. each, by Arnold & Co., London. Here are a few numbers containing material not otherwise easily obtained: Selections from Gibbon's *Decline and Fall of the Roman Empire*, selections from Kinglake, selections from Motley, selections from Froude, selections from Napier. No more attractive introductions to the works of these writers could be imagined.

As to Foreign Languages, especially French and Latin, the results obtained by the best British Schools, probably surpass those of our best Ontario schools. Not, I think, that the text books or the method is superior,—I have no evidence that it is—but because the pupils begin earlier and spend more time on those subjects. Take the King Edward High School, Birmingham, as a representative example. Boys begin Latin at the age of 10 or 11, French in the following year, and continue with *at least* as many recitations a week as with us until they are 18,—that is for seven or eight years. As a result, the Universities receive students better prepared than ours can hope to be.

In respect to French, I was requested by our Modern Language teacher in Ottawa to ask the following questions:

1. What method do you employ with beginners?
2. Do you use phonetic transcription?

I shall give a brief summary of the answers. As with us they begin with oral work. The text books chiefly used seemed to be Dent's First French Course with pictures, and Liepmann's Primary French Course. In one large Glasgow school, after about four months' work, chiefly oral, pupils began reading an easy text, this year *La Belle au Bois Dormant*. In writing French, emphasis seems to be placed on *free composition* instead of translation from English into French. There is much use of easy texts as a basis for grammar, composition, and dictation.

As to phonetic transcription for beginners, there seems to be a concensus of opinion against it. From some very alert and progressive teachers I received the following answers:

1. "I do not believe *in the least* in phonetic transcription."
2. "Phonetic transcription is as dead as a door-nail—it has been tried in some places for a year or two and then abandoned."

3. "Phonetic transcription increases rather than reduces the difficulty pupils have in beginning French. The master, however, should be familiar with it."—A wise remark. On the other hand I found a school in Edinburgh and one in Manchester where phonetic transcription is used. All agree that some judicious use may be made of phonetics.

One other point about French—an important one, I think. In Scotland for the examination corresponding to our Entrance to Normal Schools there is a dictation paper. The regulations provide for it in this way: "The French master in the school is to read the dictation paper to his pupils in the presence of the presiding examiner." There does not seem to be any reason why we should not follow so good an example.

As to the teaching of Latin, I doubt whether I have anything new to report. Stress is laid on correct pronunciation, on much oral composition, on the value of expressive reading of a Latin sentence in order to understand it without translation, and on a systematic attempt to master a vocabulary containing the ordinary words. There is some objection to Cæsar as too difficult for beginners, and among suggested substitutes are some of the familiar letters of Cicero, selections from the Colloquia of Erasmus, and portions of the Latin Vulgate. Stress is placed on what the Germans call *Realien*,—pictures, maps, copies of ancient works of art, and all those external aids, "that enable us even at this distance of time to realize in a far-off way what manner of men the actual Greeks and Romans were."

In conclusion, it seemed to me that while the English educators are far from indifferent as to the scholarship of their pupils, they are most concerned about the formation of character. The influence of Arnold is still strong. The aim is that their boys shall acquire such principles and such habits that wherever their lot may be cast, at home or in distant parts of the empire, in positions of responsibility or in places of danger, they will, in the expressive metaphor of Newbolt's stirring poem, "Play up, play up, and play the game."

MODERN LANGUAGE SECTION.

ADDRESS IN GERMAN.

Baron Nettelbladt.

Meine Damen und Herren,—Es ist mir eine Ehre und Freude heute vor Sie treten und Sie in deutscher Sprache begrüssen zu dürfen. Wie sie selber bin ich aut's Tiefste von dem Ernst der Aufgabe erfüllt, der wir die besten Kräfte unsres Lebens widmen: die sprachlichen Kenntnisse der menschlichen Gesellschaft zu erweitern, alt gewonnene Ideen auszutauschen, neue zu schaffen und in froher Mitarbeiterschaft an dem grossen Kulturwerk zu arbeiten, das gegenseitige Verständnis der Rassen zu fördern und die Schätze individuellen Denkens und Fühlens sich mitzuteilen. Sie sind es, meine Damen und Herren, welche den Strebsamen und Lernbereiten die Mittel an die Hand geben, in das innerste Wesen der Seele der Völker zu dringen. Mit treuen Händen führen Sie Ihre Schüler in die verschlossenen Tiefen, wo das edle Gold in Felsen verborgen liegt. Sie lehren dieselben, von der Oberfläche zum Grunde des Meeres zu tauchen, wo die kostbarsten Perlen zu finden sind. Leichte Brücken spannen Sie von Nation zu Nation und, indem Sie das Gefühl der Weltverwandtschaft erzeugen und stärken, dienen Sie der herrlichsten Aufgabe moderner Kultur, deren vornehmster Vertreter Seine Majestät der König von England ist: die Völker der Erde zu friedlicher Verständigung zu erziehen und das edelste Ideal unserer strebenden Zeit zur Verwirklichung zu bringen: den Weltfrieden, in dem sich dermaleinst die menschliche Gesellschaft würdig ihrer Gottesabstammung sonnen möge.

Wenn ich nun auf das vor mir liegende Thema meiner Rede: "Bilder aus der alten und neuen Welt" blicke, nöchte ich Sie bitten, mir zu gestatten, persönliche Erlebnisse vorzutragen. Es ist meine Absicht, mich einer trockenen Schilderung zu enthalten und Sie auf ein Stündchen auf der Wanderstrasse meines Lebens zu geleiten, wie dieselbe in meiner Erinnerung lebt und wie sie

Ihnen Bilder aus meiner Jugendzeit auf deutschem Boden und solche der Mittagsarbeit meines Lebens im amerikanischen Lande zeigen wird.

Denken Sie sich die alt-vornehme phlegmatische Haupt-Stadt Sachsens, Dresden, mit seinen schönen Theatern, seiner berühmten Gemälde-Gallerie und seiner englischen Colonie, welche zur Folge hat, dass fast jeder anständige Droschkenkutcher Dresdens Englisch versteht und sogar radebrechen kann. In einem schönen alten Park sitzt auf einer Bank ein 5 jähriger Knabe und neben ihm ein sechsjähriges blondgelocktes Mädchen. Beide sehn aus wie alte Leute, denn er trägt einen grossen Cylinder, den man vermittelst eingelegter Zeitungen für seinen Kopf passend gemacht hat, die Rockschösse seines Fracks hängen auf die Erde hernieder das Mädchen prangt in einem herrlichen, geblümten Seidenkleide. Sie sehen aus wie ein Brautpaar—und sie sind es auch. Die grosse Schwester des Jungen—der Junge war ich—hatte die Kinderhochzeit arrangirt.

Beschreibung der Hochzeit. (Missing in the Manuscript.)

Und Jahre fliegen vorüber. Aus dem Knäbchen ist ein langaufgeschossener Junge geworden, eine Zierde der grossen Stadtschule in Rostock, Mecklenburg. Rostock, alte Hansa Stadt! Alles ist streng konservativ, vom gefürchteten Herrn Bürgermeister bis zu den 4 eisgrauen Droschkenkutschern, welche ihre lebensmüden arabischen Rosse auf dem Marktplatze aufgebaut haben. Die ganze Bürgerschaft scheint aus Originalen zu bestehen. In der alten Welt herrscht mehr Individualität als in der neuen, wo die nivellirende Schablone dem Einzelnen praktischere Vorteile zum Weiterkommen bietet. Mit dem Ranzen auf dem Rücken, in dem neben der französischen und lateinischen Grammatik friedlich das dicke Butterbrot nebst zwei rotbäckigen Aepfeln ruht, wanderte ich alle sechs Tage in's Gymnasium. Im lieben Deutschland ist alle sechs Tage Schule, meine Damen und Herren. Von 8-12 und von 2-4 wird gelehrt und gelernt, von 5-6 geturnt, von 8-10 Uhr abends "präparirt." Nur der Sonnabend Nachmittag ist frei, das heisst, für die guten, engelgleichen Schüler. Die Sünder müssen *nachsitzen;* von 2-4 Uhr hat ein mit seinem Schicksal hadernder Oberlehrer die Aufsicht über die Sträflinge, die sich während der letzten Woche durch Faulheit oder Flegelei auszeichneten und nun zur Strafe den schönen

Nachmittag im Klassenzimmer vertrauern müssen. Dazu gesellt sich meist noch das rächende Schicksal in Gestalt züchtigender Eltern, Onkel oder Grossmütter—in meinem Falle—und leider muss ich gestehen, das sich dies des Oefteren ereignete—der väterlichen Autorität, da ich dann meine dunkle Stunde in den Händen meines 6 Fuss grossen schlagkräftigen Vaters verlebte.

Lassen Sie mich hier bemerken, dass beim Vergleich der deutschen Schulen mit den amerikanischen letztere den Vorzug grösserer Modernität und besserer technischer Einrichtungen (wenigstens in kleineren Städten) besitzen. Das ist eine natürliche Folge des alten respective des jungen Landes. Allerdings fand ich bei meinem letzten Besuche in Deutschland vor 4 Jahren vortreffliche Einrichtungen in den Gymnasien grosser Städte. Der Staat resp. die Stadtverwaltung hatte zum Beispiel Zahnärzte angestellt, welche die Zähne aller Schüler unentgeltlich pflegen müssen. Ferner traf ich ausgezeichnete Turn-Säle, Bade-Einrichtungen and Schwimm-Anstalten.

Wenn ich jedoch das amerikanische Schülermaterial mit dem deutschen vergleiche, so muss ich gestehn, dass solcher Vergleich sehr zum Nachteil Amerikas ausfällt. Das deutsche Kind lernt im elterlichen Hause Disziplin, Ehrfurcht vor höherem Alter, Respect vor grauem Haar. Das amerikanische Schulkind hat meist eine Art falschen Unabhängigkeitsgefühls, es kennt keine Ordnung und studiert höchst oberflächlich. Auch erscheint mir das deutsche Schulkind frischer und geistig gewandter—sicherlich, was das Lernen von Sprachen betrifft; denn es hat mehr Vorstellungsvermögen, mehr Ohr für Klang der Worte, mehr Fantasie. Letztere geht dem amerikanischen Kinde fast gänzlich ab. Das deutsche Schulkind lernt mit heissem Bemühen; betritt es dann später die Universität, so folgen allerdings Jahre goldenen Nichtstuns. Das amerikanische Schulkind zwängt sich durch die Lernjahre auf der Highschool, dafür jedoch studiert es zehnmal eifriger auf der Universität. (Aus jenen Schülertagen steht mir folgendes kleine Erlebnis vor Augen.

Geschic'te der Hausschlussel. (Missing in the Manuscript.)

Lassen Sie mich Ihnen noch etwas vom deutschen Offiziersleben erzählen. Ich habe meist falsche Vorstellungen von demselben angetroffen. Die Welt verbindet mit dem Bilde des deutschen

Lieutnants immer das Knallen von Champagnerpfropfen und das Monocle im rechten Auge; dazu eine Portion Säbelrasseln und ein stark zur Schau getragenes Halbgottsgefühl. Darin liegt etwas Richtiges. Man vergesse aber nicht, dass nur der junge Offizier öfters so auftritt. Der Typus des deutschen Offiziers verkörpert sich nicht in seinen jungen Vertretern, sondern liegt in der pflichtbewussten, älteren und daher reiferen Klasse, die vom älteren Lieutnant bis zum General reicht. Der Dienst ist hart. Das Leben in den kleinen Garnisonen oft reizlos. Ich bin jahrelang deutscher Offizier gewesen und kann davon ein Lied singen.

(Part left out in Manuscript)

Doch bringt der Abend Glanz und Freude nach des Tages Last und Hitze. Besonders in den kleinen Garnisonen besteht meistens ein reger freundschaftlicher Verkehr mit den Herren vom Civil. Man hat seinen gemeinschaftlichen Stammtisch, Kegelklub und dramatischen Abend im humanen Dienste des Frauenvereins. Oft bietet die Jagd den Herren gesunde Zerstreuung oder die umwohnenden Gutsbesitzer bilden Oasen in der Oede eines Sonntags in einer kleinen Stadt. Seit den letzten zehn Jahren hat sich die Kenntnis der englischen Sprache im deutschen Offiziercorps beträchtlich vergrössert, da dank dem Werte, der in den Schulen auf die Erlernung dieses wichtigsten Sprachmittels unserer Zeit gelegt wird, kaum ein jüngerer Offizier in der Armee gefunden werden kann, der nicht Englisch sprechen und schreiben kann.

Erzählung von Anekdoten aus dem Offiziers Leben.

(Missing in the Manuscript.)

Aber wieder verändert sich die Scene. Ich sehe mich im Begriff den Dampfer zu verlassen, der mich von Hamburg nach New York geführt hat. Welcher Schrecken, als ich die dicke, gutgefüllte Brieftasche herausziehen will und wahrnehmen muss, dass dieselbe nicht mehr da ist: Verloren oder gestohlen: Niemals werde ich das Gefühl vergessen, das mich bei dieser Entdeckung überfiel. Ohne Geld im völlig fremden Lande, ohne Freunde, ohne Stellung. Vier Wochen würden vergehn, bis ich mir Geld von der Heimat besorgen könnte. Die mächtige Umgebung, erschien mir als ein Grab, das mich verschlingen würde, die gewaltigen turmhohen Häuser wie drohende Riesen und die Freiheitsstatue als rächende Göttin. die mir nicht die Leuchte der Freiheit willkommend entgegenhielt, sondern vielmehr zum zerschmetternden Schlage bereit war. Doch dauerte diese seelische Versteinerung nicht lange. Wenn mein Leben mit einem Ringkampf beginnen sollte, ich war bereit, ihn zu wagen. Es hiess zuletzt nichts weiter als ein Einsetzen von Karakter, Bildung und Jugendstärke gegen fremde, aber nicht unbedingt feindliche Verhältnisse. So nahm ich denn Quartier in Stapleton, Staten Island —in einem bescheidenen Stübchen, das von der brennenden Junisonne hübsch warm gehalten wurde und dessen Decke so niedrig war, dass ich sie mit meinem Scheitel berührte. Ich beschloss, deutschen Unterricht zu erteilen und fand Stellung an der Berlitz-Schule, wo ich zehn heilige Dollar für meine Lehrtätigkeit erhielt. Natürlich erschien mir diese Lebensform ungewohnt und künstlich. Wenn ich aber heute auf jene vier harten Lehr—und—Wanderwochen zurückblicke, so kann ich darin nur die höchste Weisheit der Vorsehung sehen, die mich auf schnellstem Wege zur Erkenntnis des Grundkarakters des amerikanischen Lebens brachte. Denn wer nicht aus eigener Kraft in Amerika einen Wirkungskreis, und sei er noch so bescheiden, geschaffen hat, sondern von den heimatlichen Unterstützungen lebt, kann niemals die herbe Grösse des nationalen Lebens von Amerika begreifen, welches den Menschen auf eigene Füsse stellt, ihn unabhängig macht, alle ihm innewohnenden nützlichen Kräfte entwickelt und verwertet und ihn endlich zum Herren der Situation erhebt.

Es lässt sich nicht leugnen, dass die Vereinigten Staaten in allen Beziehungen von Kunst weit hinter der alten Welt zurückstehen. Der Grund hierfür scheint mir nicht in dem Mangel von Anlage und Befähigung, sondern darin zu liegen, dass dies glänzende, materiell so reiche Land noch nicht die Feuertaufe der Seele seines Volkes erhalten hat. Darunter verstehe ich, es hat nicht genug gelitten, um echten Pathos zu würdigen, und die läuternde, vertiefende Kraft des Schmerzes ist ihm versagt geblieben. Was versteht das Land von der Poesie der Träne und der Erlösung durch Leiden? Was hat es bis jetzt an wahrhaft grossen Schöpfungen auf dem Gebiet der Lyrik, was im Reiche der Tonkunst geleistet? Es erscheint mir oft als ein Wald ohne Vogelschrei und ein Herd ohne Feuer.

Und doch fehlt es nicht an Aufforderungen durch Naturschönheiten, deren höchstes wohl die Niagara-Fälle sind. Der Vorwurf springt in seinem dramatischen Karakter dem Beschauer doch in die Augen. Dem mächtigen Erie See wird ein Sohn geboren. Er verlässt das väterliche Haus zur fröhlichen Wanderschaft und strömt dahin, ohne sein tragisches Schicksal zu ahnen. Aber bald lassen sich warnende Stimmen hören, flehende Felsenhände strecken sich ihnen entgegen, wie weisse Nymphen-Arme erhebt sich's im Schaum seiner Wellen. Er, stolz und jugendkräftig, achtet ihrer nicht, sondern beschleunigt seinen herrischen Lauf und, indem er die Arme ausbreitet, stürzt er sich mit wallendem Königsmantel in die furchtbare Tiefe. Welch ein Crescendo der Vorgänge—eine Symphonie, die seit Urzeit her des Meisters wartet, um im Tonbilde gefeiert zu werden. Auf der Rückfahrt von den Fällen schrieb ich dem empfangenen gewaltigen Eindruck erliegend folgendes Gedicht:

Niagara.

Aus dem väterlichen Hause,
Aus des Erie blauen Wogen
Kommst du, Strom des Niagara
Majestätisch hergezogen.

Deine breiten tiefen Wasser
Küssen zweier Reiche Grenzen,
Segnen sie mit feuchtem Munde,
Dass sie sich mit Grün bekränzen.

Stolz und ruhig strömst du weiter—
Sieh, da wirft sich's dir entgegen
Mit beschwörendem Geflüster:
Halte ein, auf deinen Wegen!

Horch, da brüllt es aus der Tiefe,
Hebt gezackte Felsenhände:
Halte ein, du musst verderben!
Wende deinen Lauf, O wende!

Sieh, viel nackte schaumbedeckte
Weisse Nymphenarme winken:
Halte ein, du Königlicher,
Willst du nicht zur Tiefe sinken!

Aber du mit stolzem Grollen
Dehnst die Brust, schwillst deine Wellen:
Bin als König ich geboren,
Will ich königlich zerschellen.

Eine Stunde durft ich leben
Und die durstgen Lande tränken,
Durch die sonnenfrohe Erde
Segnend meine Wasser lenken.

Eine Stunde Gott gewesen,
Nimmer kann den Schritt ich kürzen,
Wie ich lebte frei und göttlich
Will ich in die Tiefe stürzen.

Und er breitet aus die Arme,
Donner brüllt, die Felsen beben--
Schäumend endet majestätisch
Er sein herrisch kurzes Leben.

Schweigend stehn die grauen Felsen,
Zitternd lauschen rings die Tannen,
Weisse feuchte Wassernebel
Fliehn gespensterhaft von dannen.

Aber über seines Sturzes
Schaumbedeckten Wasserwogen
Steht, bis an der Tage Ende,
Ein demantner Regenbogen.

In letzter Zeit jedoch scheint der Frühling im amerikanischen Dichterwäldchen eingekehrt zu sein. So wurde mein Interesse lebhaft von dem nachfolgenden Gedichte des amerikanischen Dichters, Brian Hooker, angezogen. Es heisst "Lilacs in the City" und voller Bewunderung der herrlichen Verse habe ich zwei Wochen hindurch mit der überaus schwierigen Uebersetzung derselben in deutsche Reime gekämpft. Endlich entstand das Folgende:

Flieder in der Gross-Stadt.

Inmitten Strassenlärm und Marktgeschrei,
Von ungezählten Klingeln grell umschrien,
Rings Schwüle, schwer wie Blei—
Und fauler Dunst und Hast und Weiterfliehn
Fand ich euch wie ihr ruhig spracht
Von Sonne, Himmel, jungfräulicher Flur,

Indess die bleiche Menge, die sich härmt
Ums nackte Leben und zu ruhn nicht wagt,
An euch ein Armvoll göttlicher Natur,
Als wärt ihr nichts, fiebernd vorüberschwärmt.

Viel schöner seid ihr, als verstehn ich kann,
Und ob ich liebevoll auch lange Zeit
Forschend euch sehe an—
Ich fass' nicht eure keusche Lieblichkeit.
Stets schöner deucht die zweite Blüte mir,
Ein neues Wunderwerk an Schmelz so reich,
Und ihr, in Scham gesenkt das Haupt—auch ihr;
Seid ohne Fehl; kaum kannt ich ohne euch
Die glücklicheren Schwestern, reizentblüht.

Ihr Tausende von kleinen Litanein!
Doch nicht wie bittre Frömmigkeit, der Knecht
Von Ja und Nein;—
Kein Truggesetz, das scheidet Froh und Schlecht;
Nein, blaue Kinderaugen, traumverhüllt,
Wie eines Mädchens stummes Erstgebet
Im Arm des Einen, der ihr Gott und Mann—
Kein Schrei der Leidenschaft—doch tieferfüllt
Von süssem Schmerz, der so zu Herzen geht,
Dass ihn nur höchste Reinheit tragen kann.

Ihr lasst mich denken an der Drossel Lied
In Waldesnacht; an stille Mittagszeit
Auf Feldern sonnbeglüht,
An Bienensummen, Sommers Herrlichkeit.
Die Seele seid ihr einer Juni Nacht—
Herztiefe Lust des mondbeglänzten Bühls
Des Brachfelds Odem flutend durch das Tal,
Entzückter Winde Spiel und Wolkenjagd,
Bis Dämmrung schmilzt zum Grundton des Gefühls
Geheimer Liebe ohne Furcht und Qual.

Ihr dreimal Holden. Nur im Traum vermag
Die Urwahrheit ich fühlen, deren ihr Beweis,
So fremd dem lauten Tag.
Arbeit-ohne Ermatten! Liebeswonne heiss,

Doch reu—und schuldlos! Während wir
Im Staube hasten, in das Nichts
Noch ungeborner Tage Nam'auf Name fällt:
Hebt still und schön, fern unserem Hohne, ihr
Die kleinen Herzen auf zum Quell des Lichts,
Als Antwort Gottes dieser klugen Welt.

Hoffen wir, dass die Schöpfung des Amerikaners nur das Vorzeichen für neue und grössere Gaben ist!

Meine Stunde hat geschlagen, meine Damen und Herren! Dem Glücklichen soll ja sonst keine Stunde schlagen, aber wenn ich auch noch so bewusst des mir zu teil gewordenen Glückes, Sie haben begrüssen zu dürfen, bin—ich muss das Abschiedswort Ihnen zurufen, eins der schönsten der deutschen Sprache:

Auf Wiedersehn!

ON THE HISTORY OF ENGLISH SPELLING.

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"It will not be the least of the blessings of heaven, that spelling probably will not there be necessary." So a writer of the last century ended his essay on English spelling. Whatever may be his hopes of the future, we may be sure that in Paradise there was no spelling, for letters had not yet been invented, and letters are a condition precedent of spelling. These letters must be alphabetic. Chinese presents no spelling problem in our sense of the word, for each word has its own complete symbol, made up of ideogram and key. But the Indo-European languages with their alphabetic systems, are all subject to this secondary development of the curse of Babel, or, as it has also been called, the curse of Cadmus. Cadmus, according to the old Greek legend, invented letters and thus made spelling possible. From Greece the use of letters was borrowed at an early date by the Romans, and from them by our Germanic ancestors. Tacitus, indeed, makes the statement in *Germania, 19, litterarum secreta viri pariter ac feminae ignorant*, which was formerly taken to mean that the Germans were in his day without writing. Wimmer and Sievers, however, apply this saying rather to the non-existence of secret correspondence between the sexes, affording another bit of evidence in favor of the theory that Tacitus was lashing the vices of his Roman fellow-countrymen by dwelling on the virtues of the savage Teutons.

The letters which are thus supposed to be a common possession of the early Teutonic tribes, including Goths, Scandinavians, Angles and Saxons, were called rūnes (Gothic and O.H.G. rūna, A.S. and O.N. rūn.) The Gothic word is used to translate the Greek mystérion, so that the element of the mysterious, the unknown, and the dangerous was connected with the earliest use of writing. The runes were engraved or cut generally on wood, hence our *write* and the O.H.G. *rizzan* = to scratch or cut.

This oldest Teutonic alphabet has been found in various inscriptions on coins, rings, weapons, and monuments, the last more especially in England and Scandinavia. The Ruthwell Cross in Dumfries, and the Bewcastle Column in Cumberland, are the best known. The Franks' casket is a most interesting specimen and is figured in Wülker's History of English Literature as well as in his edition of Grein's Library of A. S. Poetry. It is referred by Napier to the beginning of the 8th century, and to Northumbria. The runes had each its significant name, and occasionally they are found in the MSS. representing the name word, as though B were used for a bee. In Beowulf, too, there is a reference to the sword which the hero gave Hrothgar, engraved with an account of the war of the giants with God. Three Runic alphabets are distinguished by Sievers, the older continental, the Anglo Saxon and the later Norse form. The notable point about the use of these runes is that they were phonetic, and that they seem to have discriminated more closely between the vowel sounds than later alphabets have done. They follow, too, the regular development of the vowel system. Thus, in Anglo Saxon, the O.N. rune Othil became *ethel.* So as *a* appeared in three forms there were three forms of the rune differentiated in Anglo-Saxon. But while very interesting as archaic relics, the runes soon gave way to the Roman alphabet itself, which came in first *via* Kent, with St. Augustine. and later from the North by means of the Roman missionaries from Ireland in the 7th century. It was a very beautiful MS. hand, and the English developed it still more highly during the following centuries down to the Conquest. The old runic forms for *w* and *th* were borrowed from the pagan alphabet, and remained a characteristic feature of English hand down to the 13th century. The system of writing was changed after the Conquest, French scribes coming in and many peculiar developments in spelling taking place under French influence.

During the Anglo-Saxon period spelling was virtually phonetic. A marked difference exists between the different dialects, but in the West Saxon there is considerable uniformity. The delicate ears of our ancestors enabled them to distinguish more closely and accurately between the vowel sounds. The spelling becomes of the greatest importance, for phonetic theories are set up whenever a variation in spelling exists. Thus the individuality of the writer is brought into play and we find some scribes more accurately reproducing their text and others deserving such reproaches as Chaucer made to his copyist, Adam Scryvain.

In the early books on Anglo-Saxon no attention was paid to these fine distinctions, and it was not till Sievers took up the study and published his grammar in 1882, based on the careful researches of Henry Sweet, that Anglo-Saxon grammar took on the appearance of an exact science. By his subsequent investigation of the Old English metres, Sievers gained another powerful aid in determining the correct form of the Anglo-Saxon words, so that now we have such marvels of linguistic insight as his recent article on the quantity and correct spelling of the second syllable of hlæfdīge, which appears in the last number of the *Beiträge*.*

Those who have studied the oldest form of English know how exquisite was the phonetic sense of our ancestors and how it reacted upon their vowel sounds to a degree that makes the investigation of those sounds almost as fascinating to the philologist as the study of counterpoint to a musician, or the method of least squares to a mathematician.

A few of the Anglo-Saxon words remain unchanged in form in modern English, such as in, of, on, mid, from, long, etc. Others as spelled in Anglo-Saxon have the same sound as in modern English, although differently spelled at the present time : bord, col, flot, thær, rēn. The phonology or system of sounds, both vowel and consonant, was quite different from modern English, and much more elaborate. It was not, however, wholly phonetic, for the same sound might be represented by different letters, as cyning and kyning, and owing to the common omission of signs of quantity, it is often difficult to distinguish between long and short vowels.

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*P. B. B., Vol. 34, p. 576ff.

The most famous of Anglo-Saxon kings was like one of his most infamous successors, rather doubtful of his spelling. James the Third, the uncrowned king, whom Thackeray has painted more repulsively than he did the early Georges, used to spell his name *Gems*. The phonetic equivalent of Alfred's name would be Elfred, if we go according to the analogy of modern sounds. But in those days, while the effort to spell as they spoke was quite apparent, it is equally evident that they were not always consistent in their spelling, although probably more so than the average writer of our day. Alfred's own desire was to make a standard speech, and he very nearly succeeded in doing so.

The diversities that exist in Old English spelling are to a great extent due to dialectal differences and are quite intelligible to the modern scholar.

How, then, have the anomalies of Modern English arisen? A few of these vagaries may be cited from Weisse's "Origin of the English Language" (N.Y., 1879.) Thus, consider the different sounds of the vowel *a* in past and paste, vat and water; of *e* in me, met, eye, key, they, dear, bear; of *o* in dome, come, love, move, door, blood, and good; of *u* in use and in us; of *y* in by and shabby; of *au* in caught, draught, gauge, gauze, beau, beauty, etc., of *ou* in bough, cough, enough, dough, through, bought, drought, four, our and you.

The first great difficulty arose through the Norman Conquest. The old language was brought down into the lower ranks. It lost its dignity, its vocabulary was reduced, the very system of writing was changed and the Norman-French mode introduced in its stead.

This last change led to a number of new spellings, some of which are a constant source of trouble to this day. Thus the letter *u* was in many cases changed from its Anglo-Saxon use. Words containing a short *u* had an *o* substituted for it, especially if the *u* was preceded by *w* or followed by *n* or *m*. This was due partly to the desire for distinctness, and partly to the fact that the French *o* had a *u*-like quality.

Many modern words still preserve this *u*-like *o* and are still pronounced with the *u* and written with the *o*. Son, some, come, move, wonder, world, woman, money, monk, monkey, dove, love, are examples. Others have changed their sound to suit the spelling, a change not recognized in the dictionaries for the most part. Such are constable, conduit, wont, wonted.

Similarly, the long *u* of the Anglo-Saxon was replaced by the French *ou*, which had the same sound. This accounts for many changed words. The Old English or Anglo-Saxon hūs, mūs, ūt, nū, cū, būgan, thū, sū, tūn, became respectively house, mouse, out, now, cow, bow, thou, sow, and town. When final, or when followed by *n* the *u* generally became *w*. The change in sound from *oo* as in boo to *ow* as in cow came later, in the 17th century.

In the Middle English period (1150-1400) began the habit of writing final *y* and *w* for older *i* and *u*. In the former case, the older ending *ie* was retained in the plural, hence lady; ladies.

During the same period the many diphthongs of Anglo-Saxon were smoothed or levelled out. Thus, heofon became heven (heaven) eorthe became erthe (earth) heold became heeld (held). Other new diphthongs arose by the vocalisation of *g* and *w*. Thus, dæg became day, weg became way, boga became bow and wægas became wawes, still used by Spenser for waves. In a period when there was no King's English, the dialects had greater vogue, and hence the Middle English remains are most irregular in their forms.

Happily, one good old monk, Ormin or Orm, when compiling a great collection of homilies, took it into his head to write out his book in a phonetic manner, putting two consonants always after a short vowel. This he did very consistently, and the 20,000 lines that he wrote of a versified course on the Bible narrative have been more useful to the philologist than all the other books of Middle English, for they are an almost infallible guide to the quantity of the vowels. Voltaire said that l'Etymologie est une science où les voyelles ne font rien, et les consonnes fort peu de chose.” Mais nous avons changé cela and now while every consonant is of consequence, the vowels are of supreme importance.

In the next century after Orm came Chaucer, and for the first time since the Conquest, a great poet used the English language for his creative art. His fine ear is to be marked in almost every line, his power of adjusting in nice harmony the Latin and the Saxon elements of the language is no less evident, his rich and copious vocabulary is a revelation, but his spelling is almost worse than Shakespeare's. Here, again, we have to remember that the different MSS. came from different districts, and are very hard to collate, also that the language was losing its grammar.

Chaucer says at the end of *Troilus*:

"And for there is so grete diversite
In English, and in writynge of our tonge
So preye I god, that non myswrite thee
Ne thee mys-metre, for defaut of tonge."

Yet John Shirley, that "devoted admirer and indefatigable copyist of Chaucer," was so irregular in his transcriptions of the poet's MSS. that it has been suggested that he wrote from memory. It is significant that among the mass of copies of Chaucer which we owe to this 15th century student there is not one of the *Troilus*.

In the 15th century came the greatest of all causes for the confusion worse confounded of Modern English spelling—the invention of printing. It is a familiar story how the Dutch typesetters, whom Caxton and Wynkyn de Woord brought over, wrought havoc with the spelling of Chaucer and of his school. By this time another series of changes had been coming into the language. The vowels were deepening and beginning to diphthongise, but the printers took them as read. This variation in language was a part of the great epoch of change that arose in the 16th century and that causes it to resemble so much our own time. The new learning with its immense interest in language caused a development of investigation that suggests a comparison with the 19th century. It was the first great era of spelling reform in the history of English. A. J. Ellis, in his "Early English Pronunciation," supplies us with the facts. A succession of remarkable books now appeared beginning with Salesbury's Welsh Dictionary, in 1547. Twenty years after, in 1567, he published an explanation of the Welsh, in what Ellis found to be a phonetic spelling, which thus gave the necessary data for the recovery in some measure of Elizabethan pronunciation. But there were others. In 1551 John Hart had written a MS. orthographie, entitled "The opening of the unreasonable writing of our Inglish toung, wherein is shewid what necessarili is to be left and what folowed for the perfect writing therof." It was not intended for publication, but nearly twenty years later, in 1569, the "Orthographie" was published, containing the earliest connected specimen of phonetic transcriptions that Ellis has discovered. In 1555, Sir

John Cheke, who, as Milton tells us, taught King Edward Greek, published at Basle a work on Greek pronunciation, which gives in Greek phonetic transcriptions of English words. Cheke was Secretary of State in 1552, and had been preceded in that office by Sir Thomas Smith, who afterwards succeeded Lord Burleigh as adviser to Queen Elizabeth. Smith also, in 1568, published a Latin treatise on spelling in the office of the famous Robert Stephan, of Paris. He used a phonetic alphabet of 34 letters, distinguishing the long and short vowels and some of the compound consonants.

In 1580, Bulloker printed in Black Letter, at London, his *Amendment of Orthographie for English Speech, etc.*, (the title covers nearly a page in Ellis). He used 37 signs in his phonetic alphabet.

In 1619, Alex. Gill, Head Master of St. Paul's School, published his *Logonomia Anglica* in Latin. He was born in Lincolnshire the same year as Shakespeare, and may be considered to represent very nearly the pronunciation of the dramatist.

Mulcaster, another early master f St. Paul's, said words should be written as they were spoken.

Besides these books, a number of other works on languages throw light on the history of spelling, such as Palsgrave's French Dictionary, Meigret's French Dictionary, 1545, French Grammar, 1550; Baret's English, Latin and French Dictionary, 1573, Cotgrave's French Dictionary, 1611; Florio's New World of Words (Italian Dictionary), 1st edition 1598. A copy of this book has Shakespeare's autograph in it, though its authenticity is now doubted. The general tendency of these books was to assist the printers in arriving at a formal and crystallized manner of spelling. Yet while they helped to do away with the many varieties of 15th century printing, we see in the first edition of Shakespeare's Folio (1623) how far they were from having finished their work.

One thing, however, these dictionaries accomplished. They may be said to have fixed the English orthography for the next three centuries, and imposed upon it a number of already useless letters, such as the *ugh* in though, the *k* in knot, the *w* in whole and the innumerable final silent *e's*. One might almost suppose that the advice of another much later practical phonographer, John Jones, M.D. (1701), had been taken to heart by the printers. His single rule for spelling is as follows: "All words which can be sounded several ways must be written according to the hardest, harshest, longest and most unusual sound."

Of the dozen other books on spelling and pronunciation which Ellis notes in the 17th century, one example will be enough, that of John Wilkins (1665), a prototype of Father Schleyer and Dr. Samenhof. Wilkins was a son of an Oxford goldsmith, and became Warden of Wadham, Dean of Ripon, and Bishop of Chester. He married the widow Robina French, sister of Oliver Cromwell. He thus falls in that transition period which is noted for slovenly pronunciation and for a change in the spelling of many words. In one of the lists of like and unlike words we find the following example: *John Eaton hath eaten a scholar of Acton*, showing diversity both of spelling and sound.

In the 18th century, the period when authority weighed most heavily on language and on literature alike, the spelling of English was sealed up immutably for over a hundred years, at least in the Mother Country, by the publication of Johnson's Dictionary (1755). The well-known opening of *Vanity Fair* shows how strongly that fine old Tory appealed to that fortress of British conservatism the ladies academy. He was not less popular in the universities and the public schools of England. But as Becky Sharp represented the rebellious element in flinging the "Dixnary" out of the carriage window and over the garden wall of Miss Pinkerton's Academy, so the sturdy common sense of Ben. Franklin, that most practical of printers and philosophers, rejected the authority of the great Cham, and in 1768 he put forth his scheme for a new alphabet and reformed mode of English spelling, the same being contained in a correspondence between himself and Miss Stephenson, written in the characters of the new alphabet. We are reminded of Swift and Stella's correspondence. Swift wrote to her on one occasion: "Pray let us have no more *bussyness* but busyness. The deuce take me if I know how to spell it; your wrong spelling has put me out; it does not look right. Let me see, bussiness, busyness, business, bisness, bysness. Faith, I know not which is right; I think the second."

But not only ladies and clergymen were dubious of their spelling during the 18th century, such military heroes as Marlborough, Washington, Wellington and Nelson seem by their practice to have agreed with Mr. Tulliver that "spelling ought to be a matter of private judgment." Possibly they were of like mind with the songster of the Sierras, Joaquin Miller, who declared it was not the business of a poet to spell; the proof-reader was paid to do it.

To make it easier for the proof-reader was one of the tasks Noah Webster took up, publishing his spelling book in 1783, and his dictionary in 1828. He had fought in the Revolution and age did not quell his passion for reform. His views were received with favor by Isaac Pitman and Ellis in England, and the use of shorthand has probably done more to advance spelling reform than all other causes combined. The leading philologists in England and America have for many years favored a simplified spelling, but the adhesion of President Roosevelt and the support of Mr. Carnegie have done more to interest the public in the matter than Max Müller, Prof. Skeat, Henry Sweet, Whitney, March, and Lounsbury have accomplished in more than a generation.

Ontario has had an ardent spelling reformer in Dr. Hamilton, who published his Phonetic Herald in Port Hope, in 1884, and who has been in constant communication with both the English and American Societies for Simplified Spelling. Recent events have shown the strength of the reaction against spelling reform, and how the growth of an imperial sentiment is as effective upon the language of our school readers as upon the source of our periodical literature.

Meanwhile, among many arguments that might be urged by the conservator of our ancient spelling, there is one that is seldom referred to. Where with a reformed spelling would be the humor of Winnifred Jenkins (that prototype of Mrs. Malaprop) in *Humphrey Clinker*, how could we appreciate the delightful *Diary of Jeames;* what would become of Mr. Squeers' class in English Spelling and Philosophy? They would have to walk off into oblivion like those footmen Thackeray tells us of, or like that other school of bad spellers, at the head of which was Artemus Ward, with Josh Billings as a good second, and all the long line of uncrowned kings of American humor, trooping after, down to Mr. Dooley himself, whose spelling of "*J'accuse*" was one of his happiest hits. The mere mention of such a loss might well give us pause. Let us take refuge rather in the consoling thought that when spelling has been reformed the humorists of that still distant age will find a constant subject for their wit in imitating the absurd orthographic vagaries of their ancestors.

THE LITERARY INFLUENCE OF ENGLAND ON FRANCE IN THE EIGHTEENTH CENTURY.

A. F. B. Clark, B.A.

To the student of mediæval history and literature and to the observer of contemporary thought, the conception of Europe as a great intellectual confederacy, using the same tools and bent on like aims is equally familiar. Under the centralized power of the Holy Roman Empire and the Holy Catholic Church, there developed in mediæval Europe a continental culture remarkable for its unity and widespread influence. In literary matters, this unity consisted in the possession of a common stock of literary material and of recognized literary forms as vehicles for the exposition of that material. Not that certain literary manners did not originate locally; but rather that the literary temper of the time was everywhere so alert and responsive that local experiments which justified themselves were welcomed into the European family. So *The Song of Roland* soon becomes as popular in Germany and in Italy as in France. The Celtic legends pass from England to France, where they are made courtly and romantic by Chrétien de Troyes, and thence to Germany, where they are made mystic and passionate by Wolfram von Eschenbach. The *fabliaux* of France pass into Italy to be retold by Boccaccio and to come north again to feed the poetry of Chaucer. The religious drama develops almost simultaneously throughout Europe, so that often, perhaps, countrymen coming some fine morning with their produce to their respective market-towns in England and France and Spain might be present in spirit, each with his foreign brother, as they stayed to see the pageant of *Noah and the Flood.* Again, it seemed as though migrating birds carried into the far forests of Thuringia the music of the elaborate lyrics devised for the courts of bright Provence, to awaken sweeter echoes on the harp of Walther von der Vogelweide. Literature needed no passport to travel beyond its native bounds; everywhere poets' hearts, unfettered by literary creeds, were hospitable to the true and beautiful, no matter whence it came to them. Subject-matter, form and literary art were essentially one throughout Europe. There was a European literature.

The disintegration of this European literature began with the emergence of the separate nationalities which are familiar on the map of Europe to-day. Declarations of national individuality and independence were supplemented by declarations of artistic and intellectual individuality and independence. National characteristics began to reveal themselves in the national literatures. It is natural that the two peoples in whom the national sap ran strongest and clearest should have been the first to show divergences from the common European type. The moral fervor and imaginative energy of the English race begins to express itself in English literature; the artistic conscience and the talent for good-humored mockery and delicate irony reveals itself in French literature. Centuries pass and the Renaissance and the Reformation come to widen the breach. The Renaissance, by recommending the classic literatures as models, strained the relations still more between such countries as accepted these models, like Italy and France, and such as rejected them, like England and Spain. The Reformation arrayed the gravest and purest minds of Europe in the forefront of two opposing hosts.

As far as the relations of England and France are concerned, the breach was widest in the 17th century. England was Protestant; France was Catholic. England was Republican in sentiment; France had become an absolute Monarchy. The English crowds were listening to the genial humor and the fine careless rapture of Shakespeare; the French literary *élite* had enshrined the chaste goddess of classicism. Milton was writing his involved and sombre Puritan Epic; Bossuet, in polished oratory, was fulminating upon that "guilty nation, more storm-tossed on its firm land and in its ports than the ocean which girdles it." Enlightened travel had almost ceased between the two countries. The English language was looked upon as a barbarous jargon in France, and people took a pride in not learning it; in 1665, the *Journal des Savants* could not find an editor capable of translating the *Proceedings* of the Royal Society of London. Corneille used to show his friends, as a curiosity, an English translation of the *Cid* which he kept in his desk beside translations of the same play into Turkish and Slavonic. Louis XIV one day became curious to know whether his English neighbors were interested in intellectual things and whether they had a literature. So the king applied to his ambassador at the court of

Charles II., the Count de Cominges. And this is Cominges' reply: "The order that I receive from Your Majesty to enquire carefully and circumspectly about the most illustrious men in the three realms which compose Great Britain, in the arts as well as in the sciences, is an indication of the greatness and the loftiness of your soul. Nothing seems to me more worthy or more noble, and I trust Your Majesty will allow me to congratulate you upon an idea which is so worthy of a great monarch and one which will render you more illustrious in future ages than the conquest of a city or the winning of a battle. Moved by curiosity, and my mind being always bent upon serving and glorifying Your Majesty, I had already thought out a plan for enlightening myself on this subject, but I had not yet met with much satisfaction. It seems as if the arts and sciences sometimes abandoned one country in order to go and honor another in its turn. At present they have passed over to France and if any traces of them remain here, it is only in the recollection people have of Bacon, Moore and Buchanan, and, in more recent times, of a certain Miltonius who has made himself more infamous by his dangerous writings than the men who killed their kings." This Cominges was a man of wide reading and a great admirer of the ancients, and his letter makes one realize vividly the absolute non-existence of English influence on France at that time. In his letter is no mention of Spencer or Shakespeare; the name of the latter had never yet appeared in a book printed in France; it figures for the first time in a work printed in Paris in 1685-86, Baillet's *Jugements des Savants.*

But things were soon to change. Let us consider first of all certain influences which were well on their way, at the close of the 17th century, towards making the Frenchman's mind more receptive to English influences than it had been for many centuries. Texte* discovered two such influences—the weakening of the *idée de patrie* or the patriotic idea, and the prevalence of the scientific spirit. The military disasters suffered by France in the 18th century seemed to intensify her interest in the country at whose hands she suffered; the glory of the *siècle de Louis XIV* had passed away. The second influence, that of the prevalence and growth of the scientific spirit, with a corresponding diminution of the artistic spirit, is of great interest. As Texte points out, literature and art

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*Joseph Texte, *Jean Jacques Rousseau et les Origines de Cosmopolitisme. Litteraire, Paris.*

tend to emphasize the differences between nations, because they are the expression of national idiosyncrasies, whereas science and philosophy, being common to humanity, draw nations together in a common interest. Art is infinitely varied, science is one. Now it happened that the turn of the 17th and 18th centuries was a period particularly barren in French literature. One by one, the survivors of the great age disappeared: in 1704, Bossuet and Bourdaloue; in 1706, Bayle; in 1707, Vauban and Mabillon; in 1711, Boileau; in 1715, Fénelon and Malebranche. On the other hand, the illustrious writers of the 18th century have just been born: Duclos in 1704, Buffon in 1707, Rousseau in 1712, Diderot in 1713, d'Alembert in 1718. Montesquieu, Voltaire, Marivaux, Prévost are only beginning to write. Fontenelle and Lesage alone remain to bind the generations each to each. Literature being thus off the stage for the moment, men's minds were prepared for the entry of some new interest. Into the vacancy steps the English experimental science and deistic philosophy of the 17th century. In 1665 the *Journal des Savants* had affirmed that "philosophy flourishes in England more than in any other place in the world." The names of Bacon, Newton, and Locke become familiar to Frenchmen. Interest in England as the home of science prepares an interest in England as a home of letters.

Frenchmen's minds being thus swept and garnished and open to new interests, what brought the news of England to them? Well, in 1685, Louis XIV. revoked the famous edict of Nantes, which for a hundred years had granted the Huguenots a measure of personal liberty in France. At once there streams out of France, and mainly into England, from sixty-five to eighty thousand of the most independent and gifted children of France. In London, this French Protestant colony at once becomes the centre for the dissemination of English ideas throughout Europe. What in England interested these refugees primarily? Not pure literature, notice, but philosophy, science, politics. They have the journalistic instinct and they found periodicals, through the medium of which they disseminate throughout Europe the philosophy of Locke, the science of Newton and the knowledge of the British constitution. They constitute themselves the champions of any project of reform which arises in France. In advance of Englishmen, they write the first history of England,—Rapin's *Histoire d'Angleterre* appeared at the Hague in 1720. Their efforts begin to bear fruits. After 1715 the French public begins to follow English politics and to enquire about English theories on government. Books of travel begin to appear. As far back as 1664, Sorbière wrote a *Relation d'un Voyage en Angleterre*, in which he views England as a prosperous country and goes into ecstasies over English gardens and parks, "where the deer wander in large bands" and over the abundance of trees and hedges. Of English books all he had to say was that they contained "disconnected rhapsodies." His account of the English stage is interesting: "The poets pay no attention to unity of place or to the rule of twenty-four hours . . . . In order to portray a miser, they make a man commit all the meanest actions which are practised at different ages, in different emergencies and in different professions; and that it is all a *pot pourri* does not worry them in the least, because, as they say, they consider only one part of it after another, without worrying about the whole." Journals devoted to the subject of England are founded. The refugees acquire the habit of translating English books on the morrow of their publication. *The Spectator*, *The Tatler*, Addison's *Cato*, Pope's *Essay on Criticism*, *Gulliver's Travels*, *The Tale of a Tub*, and *Robinson Crusoe* are among the English books translated into French. Such was the work of the refugees; they were mere compilers, without the magnetism of literary charm, but they pressed England upon the notice of Frenchmen, and prepared the way for the men of talent like Prévost and Voltaire.

In 1694-95, a Swiss gentleman, Béat de Muralt, visits England and notes down for a friend his impressions of the country. These notes were later published under the title of *Lettres sur les Anglais et les Français et sur les Voyages*. Muralt is more influential as a propagandist of English influence, because he writes entertainingly. He admires even the comparative uncouthness (the *sauvagerie*) of his English neighbors—one of the great stumbling-blocks to the refined Frenchman of that age,—and asks whether one might not venture to say that a nation needs some *férocité* to save it from slavery, just as a man needs to be born a misanthropist in order to merely keep himself good—thus anticipating the anti-social ideas of Rousseau. Muralt begins to doubt the pre-eminence of French classical poetry. His comparison of English and French comedy is penetrating: "The characters in France are general and stand for a whole class of people, while in England, everybody living at his own sweet will, the poet finds hardly any but strongly individualised characters which are very numerous, but which are less effective." The following *résumé* which he gives of English qualities marks an epoch in the attitude of Frenchmen towards Englishmen. He says: "*Among the English there are people who think more strongly and who have those strong thoughts in greater number than the intellectual people of other nations.* But it seems to me that they commonly lack lightness of touch (*le délicat*) and *naïveté*, and I think you would find their productions overloaded with thought. . . . They neglect that *politesse dans les discours* and that *attention aux manières* which scatters and makes trivial the mind." This was a direct challenge to the intellectual primacy of France.

Prévost, most familiar as the author of *Manon Lescaut*, is the next Frenchman of talent who takes up the task of popularising a knowledge of England in France. Prévost spent several years in England, became quite Anglicised, and translated English books. In 1729 appeared his *Mémoires d'un homme de qualité*, a novel containing pictures of English life. In this book the author speaks of England as "a country which is not as highly esteemed as it ought to be by the other nations of Europe, because it is not sufficiently known to them." He also speaks of "certain childish prejudices which cling to all men but particularly to Frenchmen and incline them to arrogate to themselves the pre-eminence over all the other peoples in the world." He refers to the English stage, whose lack of regularity he criticizes; while he admires its "tragic force which stirs the heart," and also adds "for the energy of the expressions and the art of conducting the events and of managing the situations, I have read nothing in Greek or French which surpasses the English drama." What strange and new language from a countryman of the unapproachable Racine! In 1733 Prévost founded a journal entitled *Pour et Contre* which ran till 1740. The founder's object is to insert in each issue of this paper "some interesting particular concerning the genius of the English, the progress that is being made among them every day in the arts and sciences and to even translate sometimes the finest scenes from their dramas." In pursuance of this laudable aim, the editor reproduces scenes from Shakespeare with accompanying critical remarks, in the course of which he refers to Shakespeare's ignorance of the ancients as a possible advantage in that it preserved "that warmth, that impetuosity and that wonderful *délire* which shows itself in his least considerable productions." He gives scenes from *The Tempest, The Merry Wives, Othello and Hamlet.* In other numbers he treats of the lives of Milton and Dryden and gives translations from Steele, Pope, Fielding and Swift.

We have now reached the third decade of the 18th century. The barrier of prejudice has been removed between England and France. Frenchmen are beginning to admit that English ideas are worth considering, that there is something independent and original about English politics, science and literature which attracts. But that is all. England has not yet perceptibly influenced the intellectual life of any important French literary man to the degree that one could say his life-work would have been stunted without that influence. But England is about to do even that in two signal cases.

In the year 1726, Voltaire, a clever French wit and sceptic of thirty-two years of age, the author of a play and a historical epic, came to England and spent a busy three years there. In eighteen months he had mastered the English language to the point of producing in it two literary works, "An Essay upon the Civil Wars in France," and "An Essay upon Epic Poetry." Churtin Collins, after quoting extracts from these works as models of English prose, says: "If Voltaire was able after a few months' residence in London to produce such prose as this, it is not too much to say that he might with time and practice have taken his place among our national classics." In 1733 were published the famous *Lettres philosophiques*, or *Lettres anglaises.* At once it was evident that England was actually moulding the intellectual life and directing the future activities of this brilliant Frenchman. "M. Voltaire," wrote a contemporary, "is very fortunate to have travelled in England . . . everybody had recognized for a long time the poetic talent of this author. No one had ever thought of putting him in the class of people who think and reason." It is true that Voltaire was a sceptic before he left France; but the serious way in which the English dealt with these questions was very different from the frivolous unbelief of France. England transformed Voltaire the ironist and wit—a class of whom France has always a sufficiency—into Voltaire the militant champion of intellectual and political liberty.

It may be of interest to note what things Voltaire did in England, and what things he said about it. He moved about in all circles, social, political, literary, observing everything and talking to everybody. He studied the English philosophers; he attended meetings of the Royal Society; he visited the Quakers; he met Pope, Swift, Young, Thomson, Gay and Congreve; he went to the theatre. He kept up in later years his knowledge of English, and at Cirey he made it a practice to quarrel in that language with Madame de Graffigny, so as not to be understood by the servants. As to his views of English literature, he was the first French critic to point out the relationship between the British genius and the genius of the Bible. These are his words: "If the language of Shakespeare or his imagination seem to us unnatural, it is because his style is too closely copied from the Hebrew writers, so full of Asiatic turgidity." He realized how foreign English poetry is to the French, and how closely it is related to its native soil: "The poetic genius of the English," he says, "resembles, up to the present, a sturdy tree planted by nature, throwing out at random a thousand branches, and growing powerfully but unequally. It dies if you try to improve nature and trim it into the shape of a tree in the gardens of Marly." The influence of Shakespeare on Voltaire's dramas is quite discernible, if the plays produced before and those produced after the English visit are compared. *Brutus* flows from *Julius Cæsar, Zaïre* from *Othello, McBeth* is recalled in scenes of *Mahomet.* Dryden he admired highly. He enjoyed the Restoration Comedies. Collins points out that nothing illustrates better his power of entering into the spirit of English literature than his remarks on *Hudibras.* "I never found," he says, "so much wit in any single book as that. It is *Don Quixote* and the *Satire Ménippée* blended together." Parnell's *Hermit* he borrowed and inserted in *Zadig* in prose form. Of Addison's style he says: "His manner of writing is an excellent model in any country." His *Cato* he placed at the head of English tragedies, "the only English tragedy written with continuous elegance and nobility." He said of Swift: "Monsieur Swift est Rabelais dans son bon sens, et vivant enbonne compagnie. Il n'a pas à la vérité la gaieté du premier, mais il a toute la finesse, la raison, le choix, le bon goût qui manquent à notre curé de Meudon." His own *Micromégas* is largely indebted to Gulliver. He was the first critic who drew attention to the peculiar merits of Swift's verses.

He was conversant with Thomson's poems and tragedies, and in connection with the latter he wrote the following passage of dramatic criticism: "Your nation two hundred years since is used to a wild scene, to a crowd of tumultuous events, to an emphatical poetry mixed with low and comical expressions, to a lively representation of bloody deeds, to a kind of horror which seems often barbarous and childish, all faults which never sullied the Greek, the Roman and the French stage . . . . 'Tis true we have too much of action, and the perfection of this art should consist in a due mixture of the French taste and the English energy." Pope's *Essay on Criticism* he preferred to the Poetic Arts of Horace and Boileau, and the *Essay on Man* he describes as "the most beautiful didactic poem—the most useful—the most sublime—that has ever been written in any language." His view of English literature is summed up in the following admirable dictum: "No nation has treated questions of morality in poetry with more energy and depth than the English nation; that, it seems to me, is the greatest merit of its poets."

In the spring of 1729 Voltaire left England; Montesquieu arrived there in the autumn of the same year. He had already travelled in Germany, Austria, Italy, Hungary, Switzerland, Holland, investigating the constitutions and characteristics of these countries and gathering material for the composition of his great work, the *Esprit des Lois*. A few years before had appeared his *Lettres persanes*, a brilliant satiric picture "of the world of which Saint Simon was the historian and Dubois the type; of a world of libertines and harlots, of fribbles and sycophants, without religion, without heart, without hope." The tone of this work was one of urbane and delicate mockery. In England he had as sponsors the Earls of Waldegrave and Chesterfield. He is not as favorably impressed with England as Voltaire had been, but he notes the originality of the English character; they will not even imitate the ancients whom they admire; their plays are not so much like the regular products of nature as the freaks in which she has been guided by happy accidents. Montesquieu interested himself however more in parliamentary affairs and in the politics and social life of the country than in pure literature. He seems to have met none of the distinguished men of letters but to have confined his social relations almost exclusively to fashionable and aristocratic circles and to members of the Royal Society, of which he became one. He interested himself in English horticulture and landscape gardening, and on his return to France he had his grounds at La Brède laid out on the English model. "I long to show you my villa," he said to Claremont, "as I have endeavored to form it according to the English taste and to cultivate and dress it in the English manner." His direct debt to England is the impulse to write the *Esprit des Lois*. Churton Collins* says: "His stay in England gave the ply to his future studies. It transformed the author of the *Persian Lettres* and of the *Temple de Gnide* into the author of the *Considération sur la Grandeur et Décadence des Romains* and of the *Esprit des Lois*, just as it had transformed the author of *Oedipe* and the *Henriade* into the author of the *Lettres philosophiques* and the *Siècle de Louis XIV*. He said that "Germany was made to travel in, Italy to sojourn in, and England to think in." He did not wholly disregard English letters; he was acquainted with Locke, Hobbes, More's *Utopia*, Mandeville's *Fable of the Bees*, Addison's *Spectator*. He seldom refers to English poets, but his reference to French poets is almost as rare. Collins asserts that "it is not too much to say that the *Esprit des Lois* would either never have seen the light or would have appeared without many of its most shining parts, had Montesquieu never set foot on our shores." For Montesquieu, therefore, as for Voltaire, English influence meant the transformation of the debonair satirist into the serious student of human society. To their French *clairvoyance* into the ills of society England added the noble desire to make the diagnosis of and to be the physicians of those ills. So it is no exaggeration to say that to the two most brilliant Frenchmen of the 18th century was communicated something of the moral fervor of the British race.

At last then, we have established a real and important English influence upon French thought in the 18th century. But as yet pure literature had been little affected, except that the opinions quoted from Prévost, Voltaire and Montesquieu show that the old, narrow French view of artistic propriety was giving way to a broad appreciation of a dramatic and poetic art which was the very antipodes of the restrained and perfect art of Racine and Boileau.

The first English literary *genre* which gave rise to direct imitation in France was the middle-class tragedy of Lillo. In 1731 his

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*J. Churton Collins; *Voltaire, Montesquieu and Rousseau in England*; London, 1908.

George Barnwell or *The Merchant of London* was produced in London and immediately created a furore throughout Europe. To modern eyes it appears a sentimental melodrama, but to Diderot and La Chaussée in France it suggested the *tragédie bourgeoise,* which they both illustrated by works of their own, and which possibly contains the germ of the modern social drama.

But the great service of England to the cause of pure literature in France was the influence of the English novel. Texte asserts that "in the history of European literature, very few revolutions are comparable to the one brought about, at this time, by DeFoe, Richardson, Fielding, matter-of-fact and observing minds, who boldly substitute for the narrative of adventures in the Spanish or French style the exact study of contemporary society." The novel, neglected up to that time as a serious literary *genre,* becomes henceforward the central literary form of Europe. The fact that the novel was a new development, practically unknown to the ancients, made the rules of classic art inapplicable in its case, and therefore its mere appearance dealt a serious blow at the fortress of classical authority which English influences generally had begun to undermine.

Richardson's *Pamela* appeared in 1740 and was at once translated into several European languages. Prévost at once began his task of translating Richardson's works. *Pamela* was translated in 1742, *Clarissa Harlowe* in 1751. This work seemed a revelation to the French. True, they had novelists of their own of no mean ability at the time—the names of Lesage, Marivaux, and Prévost. But none of these men brought to the exspectant age what Richardson and DeFoe brought to it. Lesage is, after all, but a continuator of the Spanish novel of adventures without important characterisation; he does not treat ethical questions deeply; and his figures are taken from the *picaresque* world, not from the *bourgeoisie* which was now beginning to seek its mirror in literature. Prévost satisfied better the new requirements, but his morality was often romantic, and, except in *Manon Lescaut,* his are was inferior. Marivaux is the greatest rival of the English novelists. He introduced into the novel a simpler form, less charged with worn-out ornaments. He eliminated from it the vulgar adventures in which Lesage delights and the facile romanticism in which Prévost triumphs. He puts in the first place the metaphysics of the heart. He depicts, not romantic types, but the souls of his average contemporaries. But Marivaux had the practical defect of being a lazy writer. The reader never knew, in beginning a novel of Marivaux's, when the next instalment would appear. The *Vie de Mariane* came to an end ten years after it began to be published. People lost their interest in his stories before he completed them. Besides, for a painter of *bourgeois* life, Marivaux writes too well and too subtly. So that no French novelist completely satisfied the growing craving in France for realism and simple sentiment.

Richardson's *Clarissa Harlowe* satisfied this craving completely. Jusserand* says that Richardson "revealed to the world all the infinite charm of the analysis of the impulses of the heart, already practised but insufficiently known before him." In France, enthusiasm passed all bounds. Diderot's eulogy of him is classic: "I still remember," he writes, "the first time that the works of Richardson fell into my hands; I was in the country. How delightfully the reading of them affected me! Every moment I saw my happiness becoming reduced by the length of a page . . . . O, Richardson! Richardson! Oh! man unique in my eyes, you shall be my reading in all times! Harassed by urgent needs, if my friend falls into poverty, if the exiguity of my fortune does not suffice to give my children the attention necessary for their education, I shall sell my books; but you shall remain with me; you shall remain on the same shelf with Moses, Homer, Euripides, and I shall read you alternately with them."

The immediate product of the influence of Richardson and the English novel generally in France was *La Nouvelle Héloïse* of Rousseau, which was begun in 1756, five years after the translation of *Clarissa Harlowe.* Texte devotes much pains to proving that all Rousseau's subsequent work is the result of English influence, but it still seems doubtful whether much that Texte ascribes to this influence was not already implicit in the strange and original genius of Rosseau. However, it seems certain that, whether or not the French genius might have worked out for itself an art more in touch with common life than the classic art of the 17th century, the influence of the English novel did accelerate that movement.

With the date of the publication of *La Nouvelle Héloïse* the scope of this paper ends. That date marks the final triumph of English influence upon French literature. The nation which, little

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*J. J. Jusserand: *Le Roman Anglais:* Paris, 1886.

more than a half century earlier, held English ideals in abhorrence, had almost fallen into the opposite extreme of Anglomania. Henceforth successful English writers need not sigh for other worlds than their own to conquer; France waits smilingly across the Channel for the intellectual vikings from the Northern Island—that island which the traditional fogs of ocean may still render obscure to Frenchmen's eyes, but from which the denser and crueller fogs of ignorance and prejudice have at last been cleared away; and once again, as in the Middle Ages, France ceasing to play the role of obstructionist in the literary progress of Europe, resumes her grand office of receiving into herself the noble movements originating in various local centres and of giving them forth again in a form which is so attractive that they become the common property of Europe.

NATURAL SCIENCE SECTION.

SCIENCE TEACHING IN GERMAN SECONDARY SCHOOLS.

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It cannot be denied that Germany, especially since 1870, has made enormous progress in every department. People have tried to account for this in various ways; but the most satisfactory, no doubt, is to be found in the attention given to science in the Primary, Secondary and Tertiary Schools, and the Universities. The Germans prize education probably more than any other nation, and thoroughness is one of their national characteristics. In Berlin, with a population of something over 3,000,000, there are 98 Secondary Schools with an attendance of 40,488 pupils, or an average of 412 at each school. Of these only 9,558 are girls, or about 23 per cent. Thus 1.3 per cent. of the population of Berlin are attending a Secondary School, or more than 2 per cent. of the male population and about .7 per cent. of the female population.

A great deal of waste of energy and complication of time-table is avoided by allowing very few options in any school, and by having in their stead, a great many types of schools.

There are in Berlin:

28	Gymnasien, attendance		11,979
18	Realgymnasien	attendance	6,105
3	Realprogymnasien,		
14	Realschulen,	attendance	11,417
13	Oberrealschulen,		
4	Reformschulen, attendance		1,429
18	Girls' higher schools, attendance		9,558

The pupils for these schools are drafted from the Vorschule, a three-year Preliminary School in connection with many of the Secondary Schools, and from the Public Schools after the completion of the pupil's fourth school year.

The Gymnasien, Realgymnasien, Oberrealschule, and Reformgymnasien are nine-year schools. The Realschule, Realprogymnasien, and Progymnasien are six-year schools.

Roughly speaking the Gymnasien are Classical Schools; the Realschulen Science and Mathematical; while the other schools are in between.

What school is chosen depends on what the pupil's life work is to be. This must, in most cases, be decided before the pupil's tenth year, and always before the thirteenth. The Reform schools were introduced to enable parents to defer the choice to the latter age. In these schools French is begun in the first year and carried throughout the nine years, while the other languages, according to the type of the school, are introduced in the fourth and sixth years.

Synopsis of the Time Tables of the Various Schools.

(The figures represent the product of the hours per week multiplied by the number of years.)

—	Years to complete the School.	Religion.	German.	Latin.	Greek.	French.	English.	History.	Geography.	Mathematics.	Science.	Writing.	Drawing.
Gymnasium........	9	19	26	68	36	20	....	17	9	34	18	4	8
Realgymnasium....	9	19	28	49	....	29	18	17	11	42	29	4	16
Oberrealschule.....	9	19	34	....	....	47	25	18	14	47	36	6	16
Realschule	6	13	29	....	....	31	13	9	12	28	18	6	10
Higher Schools for Girls	7	17	31	....	....	31	16	12	14	17	14	....	14

The number of years devoted to the languages and the order in which they are studied, is as follows:

Gymnasium, Latin 9 years, French 7 years, Greek 6 years.

Realgymnasium, Latin 9 years, French 7 years, English 6 years.

Oberrealschule, French 9 years, English 6 years.

Realschule, French 6 years, English 3 years.

Reformgymnasium, French 9 years, Latin 6 years, Greek 4 years.

Reformrealgymnasium, French 9 years, Latin 6 years, English 4 years.

Reformoberrealgymnasium, French 9 years, English 6 years.

Higher Schools for Girls, French 7 years, English 4 years.

No more than one new language is ever introduced in one year.

The curriculum in Science is very extensive. For it I must refer you to Lehrpläne and Lehraufgaben für die höheren Schulen in Preussen. J. G. Totta'sche Buchhandlung, Berlin.

Among other things, it states the aim of Science to be, not so much the acquisition of useful facts as the means for mental development. The pupil is to learn to use his senses rightly, and to describe accurately what he observes. He is to learn that nature is governed by laws. And that the right understanding of these laws is of the greatest importance for our welfare. He is also, as far as possible, to learn the way by which these laws have been discovered and can be demonstrated. Observation and experiment therefore are to occupy an important part in the teaching.

In botany and zoology the course is to proceed from the observation and description of individuals to comparison, and from this to a comprehension of the more general forms, the principles of classification, and an acquaintance with the laws of animal and vegetable life. Emphasis is therefore not to be laid on the acquisition of many facts, but rather on the correct use of the facts. In the pupil's work native plants and animals are to be preferred, but not entirely to the exclusion of those of foreign lands.

From the very first, plants and animals are to be treated as living beings, and their special adaptations are to be noted, anything which may exceed the understanding of the pupil, however, being carefully avoided.

Identification of plants is recommended as useful, and either the Linnean or the natural system may be used. Excursions are recommended in order to acquaint pupils with the life of plants and animals, their interdependence, the effect of environment, life communities, etc. Botany is provided for the summer and zoology for the winter, although field work in both, from the nature of things, should be principally done in summer.

Physics and Chemistry are divided into two courses each. In the first course only those simple phenomena which lie within the pupil's experience and his interest are to be treated. Experiments are to be of the simplest kind, and where possible the pupil's own experiences are to be the point of attack. The second course is an extension of the first, both broadening and deepening it. Like the first, it is to be largely experimental, but more quantitative. The principal laws are to be treated mathematically. Mineralogy is to be combined with chemistry, except in districts where mining is an important occupation. The study should embrace the crystal forms, the physical and chemical properties of minerals, and the elements of geology and earth history.

Chemistry is not to consist of the systematic treatment of the elements and their compounds and the accumulation of facts, whereby the study becomes a burden to the memory, but is rather to be unified by the application of physical and chemical laws. The economic importance of compounds and their value to plant life, etc., are also to be considered. The practical work is to consist of the principal reactions of the metals and metalloids, simple analysis, and the preparation of simple compounds.

Complete, accurate, and concise account on the part of the pupil seems to be the prime object. Biology in the junior forms is not called nature study, but nature description. And the work is exceedingly well done,—orally, by writing, and by drawing. Thorough drill seems to be an important piece of machinery. Three or four boys, one after another, answered the same question. In some cases this seemed to defeat its own object, for the last boy, it appeared to me, often had in his mind rather the words of his predecessor than the mental picture of what he was describing.

From reading the departmental regulations one would think that all observation in botany is made from the actual plant in the hand of the pupil. This, from observation, I am led to believe is by no means always the case. Plants in Berlin are hard to get. A teacher told me that on one occasion he sent a young man out to get plants, he paid him for his time and gave him his railway fare, and all he brought back was one buttercup. The police had shadowed him and had prevented him from picking anything. He might examine, but not pluck. However, many enthusiastic teachers not only get plants for their pupils, but, what is far better, get their pupils to the plants, making weekly excursions on Wednesday or Saturday half-holidays. But most schools are so well supplied with museum specimens, excellent models and charts that there is a great temptation to use these instead of the real thing.

In some schools longer outings during the summer holidays are made, principally for the study of Mathematical Geography, map making, including contours, etc., as well as for the study of geological formations.

In Physics the demonstration method is almost entirely used. The teacher does the experiment and during the progress is continually asking questions and making explanations. Demonstration rooms are arranged in the form of an amphitheater with raised seats, and are provided with every conceivable accessory—electric current, direct, alternating, and storage; projection lantern, automatic device for closing shutters, concealed airpumps, etc.

Physical laboratories also are well equipped for individual work, but such work, as far as I could learn, was entirely optional. The course in Physics was complete without it. The practical work was only to impress more firmly by repetition what had already been learned by the demonstration.

The pupil at no time attacks a new problem in the laboratory. "No pupil learns to see by groping in the dark" was the remark made. An other remark was "where the knowledge of facts is of more importance than the training in the logical processes of thought the practical work receives more emphasis."

In the demonstration the lesson proceeds by the inductive method. The object of the experiment is stated, but always in such a way as not to prejudice the pupil's mind as to the result of the experiment. The points which are necessary for the pupil to know for the understanding of the new principle to be developed are reviewed. The apparatus is then produced, and the pupil asked to describe it, the teacher making suggestions. Then as the experiment proceeds, every phenomenon is noted, and inferences are drawn at every step.

Not a single phenomenon is missed by any pupil. The bright pupil notices them unaided, and the less observant, instead of missing them, as he might do when working alone, has his attention drawn to them by the answers of the others, in response to questions by the teacher, while the experiment is still in progress. The teacher is thus sure that every pupil has the facts, and he will now ask what these facts teach, leading them step by step to the final result. The pupil by this method fails to learn to use his hands by just that much, but he gains infinitely more by learning to use his brains. The teacher makes sure that the material for the exercise of the mind is at hand in the very best form, and not merely the material for the exercise of the hands with the hope of producing the material for the mind. This method is of course a compromise. But unless the conditions for practical work are almost perfect, such as small classes, extensive laboratory accommodation, and large teaching staff, this method will no doubt give better results than any attempt at original individual work. After the pupils have learned the general trend of the experiment, it may be modified in order to give some spice to it, and if possible made quantitative, and then given as practical work.

The Science teacher in Germany is always a specialist, but not only a specialist in Science. He holds a certificate in at least four subjects, as does every teacher in Secondary Schools. In two of these subjects he must have first rank and in the other two he may have second.

He does not necessarily hold a Ph.D. degree, as this alone would not qualify him, even as to his non-professional attainments. The only qualifying examination in this respect is the state examination, which is considered much more difficult and accordingly more honorable. Candidates are examined in Pedagogy, History of Education, Psychology, Ethics, and Religion, along with those subjects in which they want to qualify as teachers. The examination is partly written and partly oral. The written part consists of a thesis on some educational subject, which by classical candidates must be written in Latin and by modern language candidates in French or English. The oral examination in which the candidate is tested as to his knowledge of the subjects he wishes to teach, is conducted in the language in which the candidate wishes to qualify. After he passes the state examination the candidate undergoes two years' professional training and an examination. When this is completed he has a right to a position and takes his place at the foot of the waiting list. After from 4 to 8 years he gets an appointment, a fair salary and, ultimately, a pension, the maximum pension being three-quarters of the last salary which is given after thirty years' service, ten years being the shortest service entitling to pension. The training of a High School teacher thus consists of nine years in a Secondary School, four to five years at a University, two years' professional training, and one year military training, as well as five or six years of waiting for an appointment. The twelve recently appointed teachers in Brandenburg had been on the waiting list from five and a half to ten and a half years. Their average age on being appointed was 34 years, none being under 30. No need for a minimum age limit.

The Science teacher, as a rule, is very industrious, and gives hours and hours of his own time in preparing his materal. He is, nevertheless, expected to teach the same number of hours as his colleagues. Neither has he a paid laboratory assistant as is the custom in England.

The teaching hours in Germany are as follows: Principal, 20 hours per week; regular teachers, 22 hours; assistant teachers, 24 hours; special teachers, (drawing and gymnastics), 26 hours.

The pupils' hours are from 25 hours per week in the lowest form to 31 hours in the highest form.

The time given to Science in the successive years of the different schools is as follows:

Oberrealschule, 2, 2, 2, 2, 4, 6, 6, 6, 6 hours per week.
Realgymnasium, 2, 2, 2, 2, 2, 4, 5, 5, 5 hours per week.
Gymnasium, 2, 2, 2, 2, 2, 2, 2, 2, 2 hours per week.

There is probably not much difference as to the weekly time allowance in our schools and theirs, but there is as to the number of years Science is taught. Every pupil throughout his whole course has to devote at least two hours (not lessons) a week to Science. No wonder then that in the German schools they can accomplish so much more.

But length of time alone will not account for all. The temperament of the pupils is a large factor. The German boy certainly carries more of each lesson away with him than the average Canadian boy. Not because he is cleverer, but because he puts more mental energy into the lesson. I never saw a class under greater mental strain than I saw in Germany; the very image of receptiveness, and ready at any moment to give a prompt, complete, and concise answer to any question put by the teacher. It was marvelous.

The teacher, as a rule, does not waste many words in approbation of work. In fact there seems, according to our way of thinking, a lack of sympathy. The pupil is treated more like the raw material in the hands of a skilled workman, to be transformed by him into a finished product. He does it deliberately, without a single unnecessary turn, and without any apparent effort. The embodiment of reserve power.

This want of sympathy, however, is only external as was amply shown by the relation of pupil and teacher at the close of the lesson. During the lesson there is no time for anything but work. Pupils therefore do not look for words of commendation; there seem to be plenty of incentives without them. The keen competition in everything about him outside is probably that which makes the pupil so keen in school. He will gladly forego any remarks of approbation by his teacher provided he has his approbation at the end of the term, and thereby passes into the next class.

Another notable feature is the thoroughness with which everything is done. After a thing is once taught, carefully and logically, step by step, it is drilled, drilled, drilled. A faulty answer by the pupil is indicative to the teacher of want of attention and is treated accordingly.

We, as a rule, teach too much and drill and review too little, and, as a rule, have to teach about everything twice or oftener for want of having properly clinched it by drill after teaching it once.

A verbal repetition will bring back the picture of the experiment, and even if it fails in this, and only the final result of the experiment is retained, this may form a foundation for a future structure which may perhaps be more permanent, but without it would be impossible.

Science, however, is taught not only in the Secondary Schools. In the Public Schools it is by no means neglected. It begins in the third year of school and is continued with an average of three hours per week.

It is also an important study in what might be called Continuation Schools. For the boy at fourteen, when he has completed the Public School (provided he never missed a promotion) has yet by no means escaped the truant officer. He may, however, begin to learn a trade or go to business, but he has still to put in six hours a week for three years at a Continuation School. Besides, if apprenticed to some organized trade, he has to attend his trade school supported partly by the trade and partly by the city. In case the trade school has a sufficiently broad curriculum it may become an approved school, and may be substituted for Continuation School. These Continuation and Trade Schools, of which in Berlin proper there are 42, are attended by 97,549 students, of which 30,047 are apprentices learning the science of their various trades. Popular education of this kind is of the highest value, not only to the individual, but to the whole industry of the country.

Other centres for the diffusion of scientific knowledge are the so-called central stations for the various manufactories. The manufacturers, realizing the importance of Science in their industrial processes, established these stations of research and investigation and officered them with the ablest men of Science. Any member of the particular organization may here get advice and have his difficulties solved. The results of the investigations are then made known to every member of the organization to profit by them. The manufacturers of explosives, for example, maintain such a station at Berlin at an annual expense of $60,000.

Then there are the scientific societies, of which there are hundreds, either connected with some University, or, more often, quite independent.

Germany is indeed imbued with the importance of Science.

MATHEMATICAL AND PHYSICAL SECTION.

A VIEW OF EDUCATION APPLIED TO GEOMETRY.

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In considering the meaning of education, it is instructive to compare the position of man with that of ordinary nature. A marked characteristic of the latter is that it tends to maintain a constant level. If a cupful is taken out of a pail of water, the level which was disturbed is very quickly reached again. If a clearing is made in a virgin forest and then left alone, it will in time resume its complete primeval aspect. Nature exerts no conscious effort to bring about changes in her own condition, but is under the control of forces implanted in her which always act in the same way under the same conditions. All natural change takes place in accordance with immutable laws which forever tend to place nature in a sort of stable equilibrium. While continual changes are going on among the parts, these changes counteract one another; and the whole retains a perfect balance.

No part of nature can refuse mechanical obedience to her laws, unless it has developed within it an independent will by which it can map out its own course and follow it. This is exactly what man has done. He has ceased to blindly follow impulses and forces implanted within him, and has become conscious of a will and a power to do, to think, and to feel. He has risen above the natural level. He has watched nature work, and has learned the lesson of work for himself. He has studied nature in order to classify her properties, to see the eternal laws which control her, and to trace out the continuity of these laws. He has learned many facts, and discovered how these facts are related. Thus while nature is passive under the controlling influences of forces made a part of her by a superior intelligence, man has actively developed such powers within himself, and largely controls their action. He has a free will and all the qualities of individuality.

There is no doubt but man was at one time in the lower stage of ordinary nature, without active intelligent control, without initiative, moved entirely by instinct and by the ordinary controlling forces of the plant and brute creation. But by a long process of development, he has risen high. He has been subject to training and discipline, until now we find him with an intellectual, moral, and spiritual life of his own. This rise from the ranks of ordinary nature has not been the result of unconscious evolution, but of conscious directed effort, at least in the latter part of the way.

There is a law that if an object is raised above its natural level and allowed to fall, it will, before resuming that level, sink far below it. The dreariest waste in all the world is where man has cultivated a spot, and then neglected it. Forests are thus replaced by slash and noxious weeds; and it is only after many years that such a waste can come back once more to its former beauty. When anything is trained and then neglected, its latter state is worse than its first. It is no fiction that one devil cast out by an object's rise is replaced through its fall by seven devils worse and more fierce. Man is therefore in this position, that he has risen, through millenniums of training, high above the level of ordinary nature, and that through this training he has developed all the qualities of independent individuality. If training should now be universally neglected, man would sink into a condition lower than that of the brute beasts, and ultimately emerge once more on the broad level of irresponsible nature.

The object of education then should be to train up those qualities of a man wherein he excels ordinary nature, and thus ensure that in his upward climbing he shall neither stand still nor retreat. Animal nature moves chiefly by instinct; man, in his higher development moves under the guidance of an intelligent will. Animals have knowledge of facts that come under their observation, but only such knowledge as comes without the seeking; man not only has a knowledge of facts, but classifies them according to their nature, and systematically looks for more. Animals do not consciously seek the laws underlying the facts they observe; man not only seeks such laws, but studies the continuous working of them. Animals have no share in the higher realms of mind and soul, except the merely potential; man is developed in both, and in both has he pursued his course of scientific research. Man is therefore superior to ordinary nature in that he has an intelligent will, powers of observation and appreciation, a desire for the discovery of law, and the higher development of a moral and religious instinct. The object of education is therefore the cultivation of these things.

From this point of view, the educative value of a subject of study does not lie merely in the information it has to give; for animals have knowledge both instinctive and acquired. If education consisted of mere knowledge, that of man would differ from that of animals in degree but not in kind. But it depends rather on how knowledge is received and treated, how opinions are weighed, and on the attitude of the mind towards it all. It is in these that man surpasses the animal. The gathering of facts for information is fully educative only when there is an intelligent effort to forge these facts into a consecutive train of reasoning, to arrange them systematically according to their nature, and to discover the general laws of which the many facts are but separate manifestations. Or in other words, the gathering of facts is fully educative only when they are looked upon and studied for what they reveal of underlying law, and for their witness of the great unseen movements in mind and matter.

Although every intelligent act of a human being adds to his education through the conscious action of the will, yet it is true that there is a tremendous waste in educational lines. Time is wasted when the work done in it is not as great as it should be; and this is always the case when it is spent in studying the surface facts of a subject, no matter how logically, if the underlying principles are ignored whose presence the facts signify. It is in this connection that we often find the most serious educational waste; for the power to see through a series of events into underlying law is an important factor in man's supremacy over nature. Thus history has often been merely a succession of kings and conspiraces, battles and treaties, all labelled with forbidding dates; while the great currents of human existance, on the surface of which these things are merely bubbles, have been overlooked. Latin and Greek have often degenerated into a dry system of declensions, conjugations, rules, and exceptions, in spite of the fact that through these things there breathed a nation's life. Gems of English poetry have often been looked upon only as fine subjects for trick analysing and parsing, whereas one might equally well expect to exhibit the beauties of a flower by dissecting it with a woodman's axe. Algebra has been frequently nothing more than a juggling with the alphabet, the fact being quite forgotten that algebraic operations and formulae tell in symbols many of the stories of universal law. Geometry has been but a stern procession of rigid propositions, starting at a given point, and travelling by authority over a fixed road packed hard and dry by the feet of centuries. For long it was a sacrilege to say that the procession could have started at any other point, or that it could have gone over a different road, or that a particular part of it had no vested right there. No one apparently dreamed that the theorems of geometry had any other connecting relations than those on the surface whereby each depended on the authority of others for its right to live. The fact was overlooked that these theorems were but particular expressions of more general principles beneath.

Based on the preceding view of education, the value of geometry as an educative means can be roughly estimated. The teacher has first of all an abundance of facts which he may impart for their own sake; such as, for example, the properties of the various geometric figures. Some of these are known to every normal person, and even to animals, for they force themselves on the observation at every turn. In the sense defined, such information is not educative. But, on the other hand, most properties of geometric figures can be known and remembered only by the more or less trained mind. The learning of them involves the exercise of the will in an intelligent way; and this, together with the nature of the facts learned, raises the learner above the level of nature; and it is therefore educative.

The teacher has, however, and always has had, a wider purpose in teaching geometry than the mere imparting of information. He gives this information in the form of consecutive proofs with the avowed object of training in his pupils the power of logical reasoning. He begins with certain assumptions which he calls axioms, and step by step forges chains of successive arguments which stretch out from many important centres and cover the wide field of geometry. In Euclid a first view would give the impression that there is only one chain of arguments, and that this chain stretches along a narrow lane across the whole field. All the rest of geometry is apparently left to the learner and to the teacher to be fastened to whatever links of the chain they think best. This is the popular view of geometry as understood from Euclid, and the latter cannot claim to have done anything to dispel it. But even if we regard geometry as a single chain to which all else is subsidiary, it has undoubted value in an educative sense; for the power of consecutive reasoning plays an important part in raising the status of man above that of lower nature. The power of consecutive reasoning, however, should always be accompanied by a true sense of the relative values of the arguments; and such a sense is not cultivated through a study of Euclid's chain of propositions. Each proposition has its number, its enunciation, and its proof; and they all occupy their respective positions with the same gravity. But there is not a word to explain either their order or their comparative values. The only importance of some of them lies in the fact that they form links in this particular chain; while many central theorems of modern geometry have no place whatever, because Euclid considered that he had the required length without them. Many of those used by him are of no intrinsic importance from the point of view of general geometry or of practical life; and they are not even necessary to make a continuous course of reasoning. Nothing so mars the work of an otherwise intelligent man as the inability to judge of the comparative importance of passing events, or of the various issues that come within the radius of his own life. If geometry is one of the best studies to train up the powers of consecutive reasoning, it is also one of the best to train up an accurate judgment as to relative values. It will be fully useful as a means of education only if teachers and writers use their judgment freely to determine the centres which are most important in the whole field, and from these to launch out in consecutive argument. It will then be better described as a network than as a chain.

While Euclid is defective in sense of relative importance, it must be admitted that the author may have been better in this respect than the book. It was the book, however, which shaped geometric teaching for centuries; and men who would otherwise have been good teachers followed more slavishly the methods of the book than the author himself likely did. It would be impossible to embody in such a form and style any notion of comparative value; and it follows that all books written in the same form and style are defective in the same way. In the past, many "improved" editions of Euclid have been published; and many other works have been written in the same style which pretended to be independent of Euclid. But all are at fault in the very same respect. In fact, it was a firm conviction that there was only one form in which geometry could express itself, and it was a bold man who would venture on any other. In late years books have appeared which have still largely imitated the form and style of Euclid, but which have used considerable freedom with the material, and have here and there given a few human words of explanation. In these there is a truer sense of relative importance. Among them may be placed Prof. Baker's Geometry for Schools, now largely used in the High Schools of Ontario.

Granting the educative value of geometry in supplying information, and in training the power of reason and of judgment, the question then is, whether these things, aside from their reaction on the other faculties of the mind, exhaust its educative function. Judging by much of our geometry up to the present moment, the answer to the question must be in the affirmative. But in reality we have not stepped far past the threshold of its usefulness. One of the chief glories of man is that he can see beneath the mere facts that present themselves as units to his eye, and beneath any logical arrangements of these facts. He can see that these things are but prominences, separated by finite distances, resting on a continuous field. In other words, he can see that separate facts, however connected by consecutive argument, have not come into existence of themselves, but according to general laws of which they are now the witnesses. The operation of law is continuous; but as the conditions vary under which it operates, the results to a superficial observer are merely a series of separate and unrelated phenomena.

All sciences are born and grow up in the same way. At first there is only a more or less systematic collection of facts gathered from experience. These gradually become classified according to likeness or analogy; and in time the discovery is made that they all are the results of comparatively few laws which operate under varying conditions. When a law is discovered, it immediately suggests other manifestations of itself, and the original fund of knowledge is increased. Science is thus concerned largely with the discussion and discovery of law.

Geometers, however, have been most unscientific, for they have been content with the phenomena. They have studied the properties of geometric figures as separate facts which have no connecting relations other than those of hypothesis and conclusion. No laws have been looked for which by their continuous operation would unite whole groups of theorems into single principles. Consecutiveness of argument has been mistaken for continuity of law. We have seen that the old geometry of consecutive facts only, had decided educative value; but there has been tremendous educational waste, because investigation did not penetrate the surface. It is even notable that the few men who have ventured to investigate the workings of geometric law, and to restate our geometric knowledge in the light of it, have been looked on with suspicion, because they have broken loose from traditions rendered sacred by centuries of geometric saints. Nothing is so disastrous to progress in any line of study as the canonizing of its historic writings. Geometry has suffered much in this respect; and it is only in comparatively recent years that new progress has been made. It is only in the last two or three years that Ontario as a province decided to change the pace set by a man of another nationality twenty-three centuries ago. We cannot expect to adapt ourselves suddenly to new conditions, for we have grown stiff with the cramped position we have occupied so long. The only improvement seen so far in our schools generally is the break-down of the extreme formalism of Euclid, and the attempt to see facts in a truer perspective. This is good; but we have a long way to go yet. As a people, we have not entered the wide field of geometric study from the point of view of underlying law, nor apparently dreamed that such field exists. Our eyes have been so long strained in the one direction that it is difficult to get accustomed to the light from another source. Before we can enjoy the fullest educational advantage of geometry, we must investigate all that can be derived from the constancy of law under continuous variation of the conditions. Or, in other words, we must get all the possible light from what is usually termed geometric continuity. As far as I know there is only one Canadian writer on geometry, Prof. Dupius, of Queen's University, who has entered this wider field; and his work is a good one. Prof. Baker's Geometry for Schools, which greatly improved on the old lines through its truer sense of good prospective, stops entirely short of this. It does not mention the subject of continuity as a geometric law; and in the matter of general principles it has made practically no advance upon Euclid.

There remains much to be done in determining the most general laws that underlie our geometry; for geometers generally have not directed their work towards this object. But in the meantime there is abundance of material along this very line which teachers may use to develop in their pupils the desirable habit of looking below the surface. By means of geometric continuity and the ordinary generalizations of mathematics, we can unite whole groups of particular theorems into single principles. Thus, for example, only one principle is involved in all the theorems on equality of angles at the circumference of a circle; that is in the following—the angles in a segment of a circle are equal; the angle between a tangent and a chord from the point of contact is equal to the angle in the opposite segment; an exterior angle of a concyclic quadrilateral is equal to the opposite interior angle; the sum of a pair of opposite angles of a concycle quadrilateral is equal to two right angles; the angle at the centre standing on a given arc is double the angle at the circumference, etc. Similarly we find that an areal relation among the parts of any polygon runs as a common principle through all polygons of a smaller number sides and finally appears among the common theorems on the divided segment. Such generalizations unite the formerly distinct notions of internal and external, positive and negative, within and without, etc. And in time we shall find that the once heterogenous mass of separate geometric facts will have arranged itself under comparatively few distinct laws.

Examples of this could be extended indefinitely, but it is not now necessary. Suffice it to say that geometry is full of them, and that there is ample room for independent work in this much neglected field. No student or teacher can afford to overlook this feature of the subject; but as he uses geometry to train up the power of observation, reason, and judgment, he should at the same time cultivate that which is always characteristic of the truly educated man, a desire for the discovery of law.

One of the most valuable results that come from observation of the continuous manifestation of law is a certain appreciation of the fact that there is something beyond the finite. Law is forever behind the passing event, but behind law there is the suggestion of an infinite personality. The suggestiveness of a subject is frequently the most important of its educative features. And nothing is so suggestive as the silent flow of principles beneath the surface of things, not clamoring for attention, but hinting that things which are seen are temporary and things which are not seen are eternal.

It is not easy to measure the educative value of any subject; but geometry, like every other subject of study, impressed with the personality of a good teacher, should be the means of strengthening our race in those things which distinguish it above the common world.

ENGLISH AND HISTORY SECTION.

HISTORY AND CANADIAN CITIZENSHIP.

PRESIDENT'S ADDRESS.

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Why should Canadians know history? What history should they know? How can it be taught to them? The intention is that this paper shall contain some points in the nature of answers to these questions.

I.

In the first place then, why should Canadians know history? Instead of thinking of Canada as a beautiful young woman, the daughter of John Bull or Britannia, or on the other hand as a strapping young bushwhacker in long boots, shirt sleeves and broad-brimmed hat, let me ask you to-day to think of Canada as a well-brought-up young man just entering upon the possession of fabulous wealth, a young millionaire, in fact, with all the young millionaire's splendid opportunities, and, let us not forget, with, moreover, all the young millionaire's dangers, for it is true now as it was of old that "the prosperity of fools shall destroy them." It is also true, we may rejoice to remember that "whoso," even though he be a young millionaire, "harkeneth unto wisdom shall dwell securely and shall be quiet without fear of evil."

This wealth is made up in part of Canada's great natural resources, arboreal, agricultural, mineral, electrical, ever appearing greater as the discovering of Canada proceeds; a first-class equipment for profiting by these resources in the way of railways, waterways and ocean ports; a good form of government; a virile population, selected from the best that France, the young United States and Britain had, well provided with schools, churches, literature and other uplifting agencies; a position not on the outskirts of the world, but central between Western Europe and Eastern Asia, and crowning the two Americas; a climate that makes strong, aggressive men; freedom in the best sense of the word; a place in the greatest empire of all time coming to mean partnership with Britain with all that that implies.

Recently Lord Morley, in introducing his India Bill, said "the historian is the mentor of the politician." But the politician is the creature of the electors and surely Canadian citizens need guidance lest they squander their wealth, throw away their opportunities and bring evil upon their land. In a word it is the function of history to help such a young millionaire as Canada is to get his bearings, to warn him, to provide him with the highest of ideals. But this is looking forward and history deals with the past, some will say. Yes, with the past as a knowledge of it helps us to understand and appreciate the present and forecast the future. I remember how as small boys a number of us were highly amused at a field of beans a careless and inexperienced farmer had planted. He apparently started from one side of the field with a vague idea of reaching the other side somewhere. The result was that when the plants grew instead of there being a uniform space of about two feet between the rows they converged and diverged, crossed each other and were tangled up generally so that proper cultivation of them was impossible and the weeds soon hid and largely choked out the beans. His more enlightened neighbor took up points to steer by, got the first row straight and all the others. The field as the crop grew was beautiful to look upon, was easily cultivated, and yielded an abundant harvest. Without the ability to go into the past in imagination to get points to steer by, that is to understand how the present has been produced and what the future tends to become, statesmen and citizens alike will make sorry work of the fair field Canadians have to till and will get moreover very disappointing results.

The character of Canadian citizenship in the next fifty years will determine Canada's place in the world. It may be one of the foremost nations of the world, the leading partner, perhaps, in a British Empire more glorious than most people have dreamed of. Cecil Rhodes' Cairo to the Cape dream is all but realized less then ten years after his death. Will his other dream towards the realization of which he left his millions, namely, the reunion of the English-speaking people, the co-operation of the Teutonic people, be a dream and nothing more? In the meantime an intense and enlightened Canadian national spirit is desirable and need not clash with whatever the loom of time is weaving for us. These are a few of the reasons why Canadians should know history.

II.

Secondly, what history should Canadians know? Canadians should know the history of their own land. Some say Canada has no history and no politics, but such are simply bats blinking about in the daylight to which their eyes are not accustomed. The farmers of a school section in a northern county who erected a monument on the school grounds to the pioneers of the district were much wiser. So should Canadian youth be reminded in every possible way that their splendid inheritance is the result of much labor, self-sacrifice, wise foresight and splendid heroism.

Again, Canadians should know British history. Among the many reasons for this are the following: In order that we may understand and appreciate our institutions and our literature and have some sense of the deep debt of gratitude we owe the mother land for past and present favors and may realize our duty. Even in the United States, the study of British history in recent years has had a marked effect in improving the feeling of the people toward Britain, so teachers in that country tell us. Loyalty to Britain in Canada has passed along naturally to the second and third generations by means of the fireside tales of British born parents and grandparents. But a new generation is growing up whose loyalty must be nurtured in other ways, it will, perhaps, be loyalty to the empire rather and will appeal to all whether they are British by birth or by adoption.

As Canadians, moreover, we should know the history of the United States in order that we may understand and be fair to our only neighbor and also in order that we may profit by his experience as he has already gone over a road much like the one we must travel. This is particularly the case regarding the securing of a population to develop the natural resources and to enrich and strengthen the nation. The United States made mistakes and paid dearly for them in finding out how to do new things. We shall be fools indeed if we repeat their mistakes or refuse to learn from them how to overcome our difficulties, where it is possible for us to learn. For instance can we not learn much from the United States regarding the assimilating of the foreigners who are coming by the hundred thousand to share our inheritance with us? They are coming in upon us at a rate in relation to the native born three times as great as they ever did into the United States. If the making of the new-comers into good citizens was a task almost too great for the United States, how much more difficult it will be for us! It is well, perhaps, that at the start the settlement of the West was slow so that the railway, the mounted policeman, the school and the church have preceded the inrushing thousands, but the work is only begun. According to the last report of the Minister of the Interior, 262,000 immigrants came to Canada in the year ending March 31, 1908. Of these 120,000 were from the British Islands, an increase of 16,000 over the preceding year; over 58,000 from the United States, a slight decrease; and 84,000 from more than fifty different other sources, an increase of over 24,000. More than eighty different languages are spoken in our Western Provinces. Bibles in that many languages are furnished by the Bible Society House in Winnipeg. Settlers from the older Provinces will help to leaven this mass, but what will the nature of the House of Commons be, say after the census of 1921? What an opportunity there is for an army of demagogues! Even in Toronto the foreign born vote is almost a deciding element in the elections and what wonder if it should be more purchasable than that of the native born! Surely all loyal Canadians should pray and work! "The wicked walk on every side when the vilest men are exalted."

This brings us to another element that should find a place in a Canadian's store of historic knowledge. Besides being familiar with the history of Canada, of Britain and of the United States, should he not know the main facts in the history of those who are coming from other lands? By being sympathetic and appreciative towards them and their past he is more likely to gain their confidence and goodwill and to help them to become diligent, law-abiding, progressive and enthusiastic Canadians. For example what delight I brought to an Italian workman who had occasion to come into my backyard by inviting him to help himself to some grapes he was looking longingly at! Picking the clusters from the vine in the sunshine meant far more to him than a pleasant taste. His loneliness among men to whom he could hardly speak was relieved for that day by a home experience.

III.

Having considered why Canadians should know history and what history they should know I turn now to the third question: How can it be taught to them? Doctors De Witt, Lavell and others are to deal with some phases of this topic to-morrow afternoon and I must not fire off their ammunition. Moreover as an organization it is with the conditions in Ontario at the present that we are chiefly concerned.

So far as method is concerned, when most of us were in the Public Schools the chronological method was followed. For the last twenty years the concentric method has been in vogue. Now, the tendency is to lay stress on a phase of the latter and to treat the subject from the biographical standpoint. Biographies alone, that is to those without a previous knowledge of the subject, will fall as far short of instructing them as a view of the lights of the city from a point on the lake will of giving them a clear notion of what kind of place this city is. They must see it by day also to be able to fill in the spaces between where the lights were and must get into it and travel its streets one by one to know it. Biographical and topical plans are good and furnish the flesh and blood but a chronological skeleton must early be provided and must grow larger and stronger as the organism develops. The neglect of this in recent years has produced a great many who are cripples so far as a grasp of history is concerned.

In the past, outside examinations,—promotion, entrance, public school leaving, form one, form two, middle school, and upper school—were much relied upon as a stimulus or motive to both students and teachers to do the work. A feeling has arisen against these. "The examination virus is eating away the very brain fibre of our age just as it has done in China," say some. So far as history is concerned the plan has been abandoned in part. The small percentage of our youth who continue their course to the end of the middle school in the high schools there meet their first paper in history. It is based on all that they have studied for the past five or six years. Is this asking them to perform a psychological impossibility so far as memory is concerned? Does it not look like asking all to run a Marathon race, a feat that only a few can perform? University students are protesting against the arrangement by which they are tested upon what they have gone over in six months, even with a month which they can devote exclusively to review work. Some who have not tried it may think the work can all be done in a year. It will mean nearly ten pages per half hour lesson using only one set of authorized text books. If the old set is used the probability is that the paper will be framed with reference to the new set. Papers have been set on books before they were on sale in the retail stores—it is a good way to create a demand for them. If the new books have been used somebody has told the examiner that the old books are still largely used and he makes up his paper with these before him. The matriculation examiner may follow one book, the normal school entrance examiner the other. Some of the associate examiners are probably not very familiar with any of the authorized books and argue that the candidate should know the subject. This seems to mean that they should know what has been accumulating in the examiner's mind for forty years or more. These are not idle fancies; I can give particulars in support of everyone of them. The point is that the extent of the work, the multiplicity of authorized textbooks, and the uncertainty regarding the examiners cause both teachers and pupils to take up the middle school work in conditions far from ideal. My own conviction, based on a number of years of experience both as a teacher and examiner and also on experiments I have performed, is that, if the examination is based on what can be carefully read and reviewed say in four or five months, if the requirements are definite and the questions clear, splendid percentages can be secured by practically all the pupils. Otherwise one can get results just as disappointing as one may choose. For example, last fall I gave two hundred and fifty-eight new pupils a test framed with reference to the Public School course as laid down in the Regulations of the Education Department; sixteen per cent. of them got over 40 per cent., eighty-four per cent. of them fell below the pass limit. I gave one hundred and twenty-seven pupils of the second year a paper on their work since the first of last December, after providing them with the important topics for review. Ninety-one per cent. above 40 per cent. and nine below, were the results. To one hundred and forty middle school pupils I gave a paper on a broader field and was less specific regarding topics. The outcome was seventy-six per cent. above the pass line and twenty-four per cent. below it.

As regards the question we are considering,—how can history be taught to Canadians?—all will agree that the foundation for the knowledge must be laid in the Public Schools, as ninety per cent. of a generation never go to any other school. As might have been foreseen, since the subject was removed from the entrance list it has been slighted or entirely neglected in many of the Public Schools, especially the rural ones. On the test I made last fall only one out of fifty-two of those from rural schools reached the 40 per cent line, twenty-eight of them got nothing. A number of them said they had not studied the subject. A Normal School teacher, who spent a week with a Public School Inspector visiting rural schools found that the subject was not taught in seven of the eight schools they visited. It is the young men from these schools on whom Canada must largely depend for the leavening of the foreign mass on the Western prairies. Is the result not likely to be a very sour dough? Can this state of affairs be remedied while some subjects have an examination value and others have not? Would it not be better to set an age limit for entrance to the High Schools, to provide clear, interesting, well got-up books for the children, to let the teachers themselves test the pupils on papers furnished by the Department and to give the High School teachers power to reject those who are unable to do the work? This plan would allow time for mental growth, would encourage thoroughness and the development of power to do things, not merely to remember for a special occasion. More frequent, more careful and more helpful inspection might well take the place of the injurious competition now prevalent.

Let me conclude by pointing to an encouraging feature. England which, I believe, we followed in the examination system, the vertical writing fad, and other things, is now turning to something better. Instead of rigid regulations the Board of Education has supplied a pamphlet of suggestions to teachers characterized by elasticity, freedom, adaptability to local conditions and giving the teacher a chance to make the best use of his time and talents in the way most natural to him. In line with the suggestions for the teaching of history a set of readers entitled "Highroads of history," has appeared. They are so attractive and so well adapted to children, that they are sure to read them through once they get their hands upon them. These of similar ones suited to our needs would furnish the foundation needed and what is even more important would stimulate an appetite for the subject that would tend to make all lifelong students of history.

SUPPLEMENTARY READING IN THE LOWER SCHOOL.

W. E. MACPHERSON.

In submitting for the consideration of this section a list of books for supplementary reading in the Lower School, I should like to raise some points for discussion and to make some suggestions about them. These different lists are intended to serve different purposes. The regulations state that "the object of the course in literature in the lower school is the cultivation of a taste for good literature, not by minute critical study, but by reading at home and in school, aloud and silently with due attention to the meaning, standard authors whose works will quicken the imagination and present a strong element of interest." Books of this nature constitute one of our lists. The books in history and biography and works of historical fiction serve a different purpose. While it is intended that they may be as far as possible the work of standard authors, many others have been introduced suited to the capacity of the student and capable of awakening in him a sense of the realities of life in past times and arousing a stronger feeling of interest in the men and conditions mentioned so casually in his school history. A third list, similarly, of travel and exploration is supplementary to the work of the teacher of geography and should be prepared by him. We should look to the teacher of science rather than to the teacher of literature for our list of books in popular science.

Having our lists prepared, what use shall we make of them? Shall each student be required to read four books chosen from these lists with the only proviso that no two books shall be taken from the same list? Shall those students who are already familiar with more than four books on the list be allowed exemption on this account? How shall we ascertain whether the books have been read with sufficient care? How shall we make sure that the students have access to all the books on our lists?

I do not think that any student should be allowed exemption, nor that the student should be allowed unlimited choice. If the work is to be profitable it must be by constant supervision of the reading of the individual student. The teacher must know the student individually, and should require of each what he thinks best suited for the needs of that particular student. In every large school there should be a library period once a day if possible, when the teacher of English may meet the boys and discuss with them what they have read and what they ought to read. The difficulty of allowing any four books on the list is that it is a temptation to an indifferent student to pick the shortest book on the list. For this reason it is better to require the equivalent of four books, four or five shorter stories being received instead of, say, "Oliver Twist."

How should the teacher keep track of the student's reading? Three most common ways in use have been, first, to require the student to write a composition on each book. Second, to give a report of it in an oral composition class. Third, to make an oral report of it in private to the teacher. The objection to the first is, it makes the reading too much of a task; also many excellent books are not suitable subjects for school compositions. The same difficulties apply, though not to so great an extent, to the report in the oral composition class. Of these three, perhaps the third is the best. My own practice has been to require from each student a written report of each book, the report to be presented on a half sheet of foolscap. A set heading is given for this as follows: the student's name, class, the date; the name of the book, the name of the author, the name of the publisher and the number of pages in the book. This leaves ten or twelve lines, in which the student is requested to state the general subject matter of the book and his impressions, favorable or unfavorable, rather than to attempt even an outline of the plot. These half pages are put on file by the teacher, and being sorted out from time to time offer an easy method of seeing at a glance just what the student has done. If the form of this report does not satisfy the teacher that the boy has read the book with sufficient care a little talk in private soon settles the point.

As no list of good books can be exhaustive, there seems to be no objection to allowing a student to substitute a book in his home library for one on the teacher's list. Of course, the teacher's consent should be obtained.

How shall we make it possible for the students to have access to the books on our lists? Where no public library can be called upon for aid, nothing remains but to have these books in the school library and to have even three or four copies of each of the more important ones. Where there is a public library in the town it will almost always be found ready to help, and the public library should be urged to purchase three or four copies even, of some of the books. Surely their money is better employed in this way than in the purchase of a varied assortment of the latest fiction, much of which is bound to be of low grade.

Some of these books, particularly the list of prose fiction, may seem too elementary for high school students; probably half the class have read Robinson Crusoe and the Christmas Carol before they enter the high school, but as long as there are many who have not, it is worth putting on our lists.

Such lists as these must make provision for many widely differing types of students and conditions of advancement. A profitable use of them must depend on the ability and opportunity of the teacher to estimate individual conditions and to make suggestions.

Prose Fiction.

Scott—The Talisman.
    Ivanhoe, Fortunes of Nigel, Kenilworth.
    Waverley, Rob Roy.
    Quentin Durward.
Dickens—Nicholas Nickleby.
    Oliver Twist.
    The Old Curiosity Shop.
    David Copperfield.
Swift—Gulliver's Travels.
Defoe—Robinson Crusoe.
Mrs. Gaskell—Cranford.
Kipling—Captain Courageous.
    Puck of Pook's Hill.
Irving's—Sketch Book.
    (Rip Van Winkle and Legend of Sleepy Hollow.)
Hawthorn—Wonder Book.
    Twice Told Tales.
    Tanglewood Tales.
    Selections from the Arabian Nights.
Cody—World's Greatest Short Stories.
    Aladdin, Rip Van Winkle.
    A Passion in the Desert (Balzac).
    A Christmas Carol, The Gold Bug.

The Great Stone Face.
The Man Who Would be King.
Mabie—Stories Every Child Should Know (McClelland and Goodchild).
The King of the Golden River.
Undine.
The Great Stone Face.
The Man Without a Country.
The Nurembourg Stove.
Rab and His Friends.
Carrol—Alice in Wonderland.
Blackmore's—Lorna Doone.
Stevenson—Treasure Island, Kidnapped.
Conan Doyle—Micah Clarke.
The White Company.
Kingsley—Westward Ho!
Scott—Tales of a Grandfather.
Henty—With Wolfe in Canada.
The Bravest of the Brave.
The Lion of St. Mark.
Under Drake's Flag.
With Clive in India.
Waterloo—The Story of Ab.
Strang—A Mariner of England (McClelland and Goodchild).
With Marlborough to Malplaquet.
With Drake on the Spanish Main.
Roberts—The Forge in the Forest.
Quiller—Couch—Fort Amity.
Parker—Seats of the Mighty.
Kingsley—Hereward the Wake.
Canton—A Child's Book of Saints.
C. M. Yonge—The Prince and the Page (Macmillan & Co.)
The Kipling Reader (Macmillan & Co.)
Hughes—Tom Brown's School Days.
Vachelle—The Hill.
Farrer—Eric.
Aldrich—The Story of a Bad Boy.
Mary M. Dodge—Hans Brinker.
Boyesen's—Boyhood in Norway.
The Modern Vikings.

Mark Twain—Tom Sawyer.
Jane Andrews—Ten Boys on the Road from Long Ago till Now.
Lucy Larcom—A New England Girlhood.
Mrs. Madden—Emmy Lou.
Kenneth Graham—The Golden Age.
Stewart Edward White—The Magic Forest.

History and Biography.

Lang—The True Story Book.
    The Red True Story Book.
Laut—Pathfinders of the West.
Parkman—Romance of Canadian History (Morang).
    Montcalm and Wolfe.
    The Oregon Trail.
Grant—Joseph Howe.
Southey—Life of Nelson.
Macaulay—Warren Hastings.
    Clive.
Philip Gibbs—Founders of Empire.
A Sea Dog of Devon.
Tappan—In the Days of Alfred the Great (McClelland & Goodchild).
    "   "   William the Conqueror.
    "   "   Queen Elizabeth.
Fiske—Discovery of America.
Fitchett—Deeds that Won the Empire.
    Fights for the Flag.
    Nelson and His Captains.
    A Tale of the Great Mutiny.
Morang—Selection from Makers of Canada.
Gayley—Classic Myths of English Literature.
Bullfinch—Age of Fable.
E. P. Weaver—A Canadian History.
Robert's—A History of Canada.
Macaulay—History of England (Chapter III.)
Church—The Story of the Odyssey.
    "   "   Iliad.
Finnemore—Social Life in England, 2 Vols. (Macmillan & Co.)
Henry Newbolt—Stories from Froissart (Macmillan & Co.)
Lyde—The Age of Drake (Macmillan & Co.)
    "   "   Blake (Macmillan & Co.)

Narrative and Dramatic Poetry.

Tennyson—Enoch Arden and other poems.
Scott—Lady of the Lake.
  Lay of the Last Minstrel.
Longfellow—Miles Standish.
  Evangeline.
  Hiawatha (Selections).
  Tales of a Wayside Inn (Selections).
Aytoun—Lays of the Scottish Cavaliers.
Macaulay—Lays of Ancient Rome.
Coleridge—The Ancient Mariner.
H. S. Ballad Book (Morang).
Whittier—Snow Bound.
Morris—The Earthly Paradise (Selections).
Goldsmith—She Stoops to Conquer.
Henry Newbolt—The Island Race.
  Admirals All.
Arnold—Sohrab and Rustum.
  The Neckan.
  St. Brandon.
  The Forsaken Merman.
Shakespeare—Julius Cæsar.
  Coriolanus.
  Merchant of Venice.
  As You Like It.
  Twelfth Night.
  Midsummer Night's Dream.
  Richard II.
Sheridan—The Rivals.

Popular Science.

Burroughs—Birds and Bees.
  Sharp Eyes.
  Wake Robin.
Seton Thompson—Wild Animals I Have Known.
  Lives of the Hunted.
Grant Allen—In Nature's Workshop.
  Flash Lights on Nature.
Sir Robert Ball—Star Land.

Vernon L. Kellogg—Insect Stories (Henry Holt).
Olive Thorne Miller—Bird Ways (H. M.)
Weed—Nature Biographies.
Miller—The Brook Book. } Copp, Clark.
Job—Among the Water Fowl.
Flammarion's Popular Astronomy.
Williams—Romance of Invention (McClelland & Goodchild).
Hale—Stories of Invention.
Baker—Boys' Book of Invention.
Boys' Second Book of Invention (McClelland & Goodchild).
Buckley—The Fairy Land of Science.
White—Natural History of Selbourne, Selections (Macmillan & Co.)
Kingsley—Madam How and Lady Why.
Holden—Real Things in Nature (Macmillan & Co.)
Weed—Life Histories of American Insects (Macmillan & Co.)

TRAVEL AND EXPLORATION.

Dana—Two Years Before the Mast.
Bullen—The Cruise of the Cachalot.
Jenks—The Boys' Book of Exploration.
Prescott Holmes—Exploration and Discovery in the Frozen Seas.
Mrs. Brassey—Around the World in the Yacht Sunbeam.
Butterworth—The Story of Magellan.
Nordhoff—The Merchant Vessel.
Joseph Jacobs—The Story of Geographical Discovery.
Atherton—Adventures of Marco Polo (Appleton's).
Paul du Chaillu—In African Forest and Jungle.
Jules Verne—Round the World in Eighty Days.
Romance of Polar Exploration.
" Modern " } McClelland & Goodchild.
Adventures in the Great Deserts, etc.
Wiggins—Penelope's Experiences in England, Scotland, Ireland.
Little Journeys (Copp, Clark. 50c).
(One volume to each country ; about 30 volumes).
Compton—Indian Life in Town and Country.
Buley—Australian Life in Town and Country.
Treves—The Other Side of the Lantern.
Peeps at Many Lands (Macmillan & Co.)
(One volume to each country).

ENGLISH LITERATURE FOR JUNIOR MATRICULATION AND ENTRANCE TO NORMAL SCHOOLS.

W. J. Sykes, B.A.

In introducing this subject, while suggesting some alterations and additions, I shall not propose any radical changes.

First, I wish to emphasize what seems best in the present course. The play by Shakespeare is admitted by nearly all teachers to be the central, strong feature of our Matriculation year's work in English Literature. When rightly handled, it is full of interest for the class, and the culture to be derived from it can hardly be obtained otherwise. Whatever changes, then, we may advise, we must keep the play of Shakespeare.

Next, we turn to poetry, other than the play, prescribed for Matriculation. This in a general way seems to be a three year's rotation, (1909-10-11): first year, selections from Wordsworth and Coleridge; second year, selections from Tennyson; third year, selections from Tennyson and Browning. By way of variety, we occasionally have selections from Longfellow, including Evangeline, and we have had one of Scott's long narrative poems. Now, Wordsworth, Coleridge, and Tennyson are undoubtedly suitable poets for matriculants to study, and, for my part, I am quite in favor of Browning. If in some cases, as the *Epistle of Karshish*, the class found difficulty, this was more than compensated for by the freshness and stimulating quality of the thought. To Longfellow and Scott, a general principle applies; do not keep the pupils marking time. In other words, do not require them to read over again for matriculation, literature that in the great majority of schools they have studied in a lower form. No doubt there is some benefit to be derived from studying a good poem twice; but with so large and varied a field awaiting our students we are not doing our best by them when we force them to go a second time over the same ground. In applying this principle we must strike out the selections from Longfellow; these are commonly read by pupils in their first year. Should the question of Scott's narrative poems arise, the same rule applies; *The Lady of the Lake* and *The Lay of the Last Minstrel* almost always form part of the lower school course. As to *The Ancient Mariner* and *Enoch Arden*, I cannot speak so positively, but why should the latter be prescribed when there are the Idylls?

Looking critically at the literature prescribed—selections from Wordsworth, Coleridge, Tennyson, and Browning—we may well ask, "Have we not got into a groove? Is not our scheme of English Literature for Matriculation narrow? Does it aim to represent either types of epochs of literature?"

Assuming that our present selection of poetry other than Shakespeare's may be improved on, let us look for some broader and more representative scheme. The plan I beg to submit for discussion is a three years' rotation representing in a general way (1) Victorian Literature, (2) Early Nineteenth Century Literature, and (3) Eighteenth Century Literature. How would such a scheme work out in detail?

I. *Victorian Poetry.* Here, of course, we should place selections from Tennyson—not, however, *Enoch Arden*, and not, I think, the *Ode to Memory* or *The Dying Swan.* Here also would come selections from Browning, leaving out *Love Among the Ruins*, and substituting *The Grammarean's Funeral*, or, better still, *Pheidippides.* A few poems by other great writers of the period might be added, such as *The Future*, the Sonnet on Shakespeare by Arnold, *Say not the struggle naught availeth*, by Clough, and perhaps one or two selections from the works of Henley or Newbolt.

II. *Early Nineteenth Century.* Selections from Wordsworth and Coleridge should probably form the larger part of the poetry for this year. While the present selections (those for 1909) are in the main satisfactory, a few alterations may be suggested. First, of the three poems, *To My Sister*, *Expostulation and Reply*, and *The Tables Turned*, retain only one—perhaps *To My Sister.* Poems of this kind, philosophical in their nature, are better suited to a later stage of mental development than that represented by the pass matriculation candidates. I should also leave out *On the Same Occasion*, a poem that does not repay the pupil for the time he has to give to it. Perhaps the *Ode to France* might be substituted for *The Ancient Mariner*, if the latter is read commonly in the lower school. But more important than these suggestions is the question of additions. Why should the younger poets of this era, the revolutionary poets, whose verse is throbbing with life, vigor, and passion, be unrecognized? Might not selections from Keats, Shelley, and Byron appeal more to our class of adolescents than the quiet, reflective philosophy of Wordsworth? We must think as much of the stage of development of mind and taste of our pupils, as of the abstract merits of the literature to be prescribed; and we of middle age must not allow our tastes to weigh too strongly when selecting poetry for boys and girls of sixteen to eighteen. Let us suggest definitely: Keats' *A thing of beauty is a joy forever,* and one of the Odes; Shelly, *Ode to the West Wind, The Recollection,* that inspiring chorus from *Hellas*: *The World's great age begins anew, The Cloud* or *The Skylark;* Byron, *Sonnet on Chillon, The Isles of Greece, An Alpine Storm,* and some other selections from Childe Harold, but not a whole book of this poem.

III. *Eighteenth Century.* Though we should be going back further than 1700, let us begin with *L, Allegro and Il Penseroso.* To cultivate an appreciation of fine poetry it would be hard to find anything in the English language to surpass these two poems. Both in the United States and England they are regarded as eminently suitable for study in the Secondary Schools. For a long poem let us take Goldsmith's *Traveller.* For shorter poems, selections might be made from some such list as this:

Collins: *The Passions, Ode to Evening.*

Gray: *The Bard, The Elegy, Ode on the Pleasure Arising from Vicissitude.*

Johnson: Selection from the *Vanity of Human Wishes.*

Blake: *To the Muses, To Spring.*

Cowper: Selection from beginning of fourth book of *The Task.*

In each year it might be expected that a brief outline of the literature of the period studied should be taken up.

One more suggestion regarding the literature of Pass Matriculation I wish to make—require some prose. It is not enough to say that some prose may be read as Supplementary Reading in the Matriculation year; it is better to give it the status of work officially required. It will be admitted by all that the best prose forms an important part of literature—that a course of English literature consisting of poetry only is inadequate. The study of prose literature is complementary to the study of poetry. A boy may derive no less benefit from a study of Burke's Speech on Conciliation with the American Colonies, than from the *Ode to Duty.*

Moreover, our Ontario Universities stand alone in not prescribing some prose literature for Matriculation. Let me give some details.

For the Cambridge (Eng.) Locals (1909) there are prescribed: Lamb's *Tales from Shakespeare* (prelim.); Scott's *A Legend of Montrose* (Junior); Selections from Bacon and Gibbon (Senior).

For the Oxford Locals (1909) there are prescribed: Keary's *Heroes of Asgard*, and Scott's *Talisman* (preliminary); *Quentin Durward*, and Burke's *Thoughts on the Present Discontents* (Junior and Senior), and *Utopia* (Senior).

For Harvard, some of these are read: Burke *On Conciliation*, Washington's *Farewell Address*, Webster's *Bunker Hill Oration*, and some essays by Macaulay.

For the Northern Universities, England (Manchester, Liverpool, Leeds, and Sheffield): 1908, Cowper's Letters or *Esmond;* 1909, *Utopia*, or, Carlyle, *Heroes;* De Quincy's *Mail Coach*.

For Edinburgh (1908): *Quentin Durward*, and Macaulay on Addison; (1909), First fifty essays from *The Spectator*.

For McGill: Nineteenth Century prose (selections) for pass; Macaulay on Byron, Hastings and Clive, for Exhibitions.

In the two best books on the teaching of English, such a thing as the omission of prose from the course for a year is not considered. Consequently, I submit, that it would be well to add some prose (preferably exposition or argument, as this would be in line with the composition work for the year) to the English literature prescribed for matriculation. This prose might be selected from the period studied for that year.

Finally, I want to say one word about literature for Honour Matriculation and Entrance to the Departments of Education. It is not in the best interests of our pupils to have the Honour literature consist of the Pass literature with a play of Shakespeare added. There should be progression. We are not making the best use of our time. Why not give a course of Milton, Shakespeare, Spencer and Chaucer?

Suggested Scheme.

First year: Play of Shakespeare, Victorian poetry, prose, outline of history of literature (1830-1890).

Second year: Play of Shakespeare, Early Nineteenth Century Poetry, Prose, outline of history of literature (1790-1830).

Third year: Play of Shakespeare, Eighteenth Century Poetry, Prose, outline of history of literature (1660-1790).

THE GEOGRAPHICAL BASIS OF HISTORY.

NORMAN W. DE WITT, PH.D.

The aim of the scientist is to discover the beginning of things. The geologist wishes to know the origin of the earth, the biologist the beginning of life. It is likewise with the student of history, who is beginning to imitate the methods of the scientist. The time has passed when historians were content to know merely Greece or Rome or Judaea. There were great men before Agamemnon and there were great peoples before the Hebrews, the Greeks and the Romans. The world was already ancient in 753 B.C., and the Romans were modern in their day. Even the most ancient of the so-called ancients had nameless predecessors from whom they inherited priceless legacies. The ball of civilization had grown big before history began to be written down or recorded in any sort of symbol or picture. The inventions and discoveries that we have made in recent times, the telephone, the locomotive, the airship, these seem big because they are so near; an ascent looks steep when you have just made it. But what about the potter's wheel? Was that not a greater invention in its day? Did it not alter life more profoundly? Then there are bows and arrows, wagon wheels and horses' bridles; they had inventors too, and their invention was a great step upwards. There was a time when men did not cook their food nor wear clothes. We should like to know where and when and among whom these things began. Surely it was a great day when we discovered that we had ancestors.

Of late years, thanks to the reaction of the scientific spirit upon other fields of knowledgs, there has sprung up a new group of ologies that claim for their province, not the stories of battles and the lives of heroes, but the whole domain of human life, savage and civilized, historic and prehistoric. Esthetologists investigate the sports and games of primitive peoples to find out what part these activities played in teaching men to live better, that is to grow civilized. Ethnologists study the differences of physical type among races in order to reveal the relationships of the human family and, if possible, to discover the original stock or stocks. Then there are other investigators, who, though lack-ing such neat and distinctive names, pursue similar studies and reveal what is significant in religion, folk-lore, magic and the like, things that have always engaged the attention of human beings. Sociologists make researches into such institutions as the family and marriage.

The science that ought to include all of the above is Anthropology, a word that means "the science of man. Under this term might be gathered the knowledge of all that men have done since the creation, so far as we can discover it. Another group, the Archæologists, have devoted themselves chiefly to unearthing the antiquities of the Greeks and Romans on one side of the ocean, and those of the North American Indian on the other; but if they interpret rightly their own name, Archæology, which means the "science of beginnings," it is a striking commentary on the direction and tendency of contemporary research. To begin his first chapter with the words "in the beginning" is the aim of the scientist.

The methods of these new sciences are travel and exploration among tribes that have lingered in stages through which the now civilized races had passed before history began to be written. For example, any one would be mystified in looking at a stone axe of our forefathers to know how it was fastened to the handle, did he not know that exactly similar instruments are still in use among Guinea savages. Another method of these studies is excavation, especially in lands like Egypt, where the nature of the climate has preserved a great deal that was concealed in the soil. There is in the Museum of the University of Toronto a prehistoric man wrapped in a burial mat and surrounded by the pottery with which he had lived his life, Mr. Currelly says, 6000 years ago. But even he, it must be said, was not a beginner. By his day men were making very neat dishes and pots out of clay and the finest kind of flint knives and weapons. It may have taken his ancestors thousands of years, not forgetting the frequent setbacks, to work up to that degree of skill and some men are prepared to say that men were living in Egypt 10,000 B.C.

But few of us will have time or taste for sampling the hair and measuring the skulls of savages or of delving in the sands of Egypt and must perforce be content with what others discover and with our own imaginations. It may be said to our comfort that the imagination is of no little use to an archæologist and that the best books are sometimes written by men who never superintended an excavation and never saw a barbarian on his native heath. It is an example of imaginative archæology that I am offering you to-day. You don't have to believe what I say. I may not believe it myself this time next year. I desire your interest and attention only for the fun of thinking the thing over. Any one who objects to thinking for the fun of the thing puts himself under suspicion. A very good test of a man's character is to ask whether he has any spare thought and enthusiasm and what he does with it.

Some of those things that are apparently most idle may prove to be useful in the long run. A pleasant and stimulating relaxation they may be. Who would not turn with delight from Magna Charta, the Licinian Rogations or the Reforms of Cleisthenes to wonder for a while who invented the wagon wheel, who tamed the first horse and where, or who milked the first cow? It is worth while to just to have the thought occur to you that somewhere and once upon a time someone milked a cow for the first time. It is at least a rather new line of thought and every extension of our mental experience is a boon to ourselves and to others.

In the beginning was the struggle for existence. Man hunted man, tribe persecuted tribe, race hated race. Even if we were not familiar with this warfare from our knowledge of the North American Indian and other savage life we have silent evidence of that age of human existence in the forsaken cliff dwellings of Arizona, where men would certainly never have cut homes for themselves unless they had been unremittingly pursued; secondly, in the Esquimaux who found salvation for themselves in a region where they surely did not prefer to live in the beginning; again, in the prehistoric lake-dwellings of Switzerland, where some unknown race took refuge for its preservation. However, all these expedients were efficacious only for a time, or reacted disastrously upon those who adopted them. They depended too much on local conditions and contained no seed of progress. To survive, the elements of a civilization must be transportable and communicable.

America was far behind Europe in producing a civilization.

Spacious as America is, it is singularly poor in safe retreats and unfit for the preservation of small and closed societies where arts begin to grow. The most promising starts were made in Mexico and Peru in places very unlike those where the great riches of to-day are found, but these beginnings were crushed out by the coming of Europeans. Feebler beginnings at other sites fell a prey to native enemies. Europe on the other hand, and especially the Mediterranean lands, afforded conditions especially adapted for conserving the results of human effort in its early stages. The shores of that inland sea enjoy a mild and healthful climate without extremes of temperature; it is a region of the tree and the vine, the earliest food of men; it affords great numbers of safe, and yet not distant nor inaccessible retreats for small communities.

The important geographical features in early times were those that afforded a defensible residence, the mountains, the sea, the desert and the swamps. Men would never have chosen to live in the swamps of the Nile valley, but they felt safe there while more daring neighbors took greater chances of life abroad. Here along the river banks they discovered or at least developed the cultivation of grain, a commodity of inestimable value for the subsequent progress of the race. While the fruits of the tree, with the best care, fail about three seasons out of five, the grain crop in Egypt is almost certain. Moreover it could easily be preserved, measured and transported. By it men could best survive famine, siege and bad seasons. It made Egypt. The story of Joseph and his brethren tells its greatness; people went down there to buy corn.

The great disadvantage of the situation is equally apparent; it was, at certain seasons, a hard land to defend and the slavish nature of the labor that it exacted from its inhabitants made them poor defenders; they went there in the first place because they were better workers than fighters. The robber came again and again and stole their grain, until at last some brigand, wiser than the rest, conceived the happy idea of establishing a monopoly of the robbing. He settled down in the country and systematically blackmailed the inhabitants. This was the beginning of what we call taxation. This went on until another conqueror came, but whoever ruled the country from time to time grew rich out of its products and by importing useful and beautiful things from other places he made his country a storehouse of art and knowledge.

Egypt, by the production of wheat, influenced commerce, war and government in various ways. For commerce grain was almost as good as money; it could be kept, transported and measured in any quantities. Furthermore it could be shipped over seas without risk and by land with great convenience on asses and camels. All nations desired it and so Egypt was in a position like that of the country to-day that has money to lend. In war the possession of grain made possible distant military expeditions because it is a concentrated food and men and animals can carry a supply sufficient for a journey of several weeks' duration. Distant expeditions, at first undertaken for motives of revenge and robbery, led to conquests and provincial possessions. This meant some provision of government and so imperial ideals became fixed in the minds of the Egyptian kings. There were still other consequences of these things. The vanity and ambition of the kings called into being monuments and that pictorial art which seems to have ended in writing. Written history grew out of this and chronology and the calendar along side of it. Such may have been the forward steps of the race in this favored region.

The case of Greece may be taken up after Egypt because it is so different and differences help us to think. Greece, islands and all, embraces only about 25,000 square miles, and an American would not be counted extremely rich if he owned all of it. Three fifths of its surface is unfit for cultivation, it possesses no navigable river and most of its running waters dry up in summer. It is a land of the tree and the vine, whose crop frequently fails. Yet poor as the whole country is, the poorest part of it, Attica, has the greatest achievements to her credit. The fact is that the extreme poverty of the land called out men's wits. They took to the sea for their living, became pirates and then merchants. At home they learned to make pretty things out of clay to trade for what they wanted abroad. Their pretty vases were exported to all parts of the Mediterranean. They learned to work in bronze also and we get from Xenophon the interesting information that some Persian soldiers had Greek swords. The father of the orator Lysias had a sword factory and made a fortune for his family. So the Greek made things with his hands to trade for food, while the Egyptian traded food for articles of manufacture.

Again, since in Greece communication by land is difficult and the mountains made large numbers of sites defensible, governments sprang up at many points, which through mutual attractions and repulsions produced a great variety of political ideas; in Egypt, on the other hand, where intercommunication by the river was easy and transverse divisions slight, only one government grew up and with it very little thought among the people.

Human life was differently affected in other parts of the desert. The necessity of moving frequently with the change of seasons in order to find food for themselves and their flocks drew closely together those who were united by birth. In order to survive they had to be true and honest to their own, and murderous to others. Men were frequently compelled to fight, to flee, and to endure hardship. This life eliminated the weak, the liar and the thief. It encouraged monogamy since in flight and in fight wives are impedimenta. This tribal loyalty found its concrete expression in worship of a tribal god, but the political advantages of this worship as a means of preserving the race seem to have been realized and expressed in its fullest extent only by those Jewish statesmen whom we call prophets. This religion that they built up, line upon line and precept up precept, here a little and there a little, was at first only for Jews, but through the person of Jesus Christ it became available for all men, illustrating what I said before that the experience of a race in contriving its own preservation is useful only when it can be transferred and used by others.

The Tyrians were, like the Jews, a Semitic people, dwelling on a barren and arid, but defensible island off the coast of Palestine. They discovered in their natures, as the Arab has often done since, a taste for the sea and for piracy. But even pirates must dispose of what they capture and so, though piracy was never entirely abandoned, still much legitimate business was combined with it. It was discovered that men could acquire riches by purchase and sale as well as by robbery and sale and that the former was a much more permanent source of income. So they hawked pretty and useful things from where they were made to where they were desired or needed around the shores of the Mediterranean. By their own manufactures of woollen cloth they gratified the pleasure that men and women universally take in colored clothes, and incidentally they disseminated a great deal of knowledge about history, art, government and writing, thus contributing in no small degree to that progress towards a unified civilization in which civilized life around the Mediterranean was destined to converge. The Phœnicians were the intellectual as well as the commercial brokers and middlemen of antiquity.

In the mountains men lived by the chase and by herding flocks. The reaction of this life was physical and mental. Mountaineers can fight and endure; they despise menial labor and the weakness that follows it; they despise the plainsman and conquer him. They make him work for them. They levy blackmail now called taxes. It was from the mountains came such dominant people as the Assyrian, the Persian, the Hittite, the Greek, the Macedonian, and the Roman. They taught men to pay taxes, to respect policemen and to obey a summons. The Romans, coming at the end of this long list of president nations, were the Pierpont Morgans of ancient high finance. They headed the biggest combine in government the world had ever seen but the concerns they combined had been created before them. The history of Rome is merely the last chapter in Mediterranean history.

Limits of time will not permit me to treat even in outline the contributions that other nations have made to the sum of useful ideas that race experience gleaned in lands around the Mediterranean. It is not even possible to show the steps by which that small and, in the first stage, timid race, whom we call Romans, coming into the arena of the ancient world in its very latest days, grew from townsmen who could scarcely defend themselves to the possessors of an empire from which, for a long time, other nations could not defend themselves at all. We must neglect also the peoples of the northern Europe and content ourselves with showing the great steps by which civilization appears to have grown and to be growing, in which separate nations play a part like great individuals in a single state and in which a thousand years are as one day.

In place of the well-worn division on the basis of time, Ancient, Medieval and Modern, the following is proposed, being based on geographical regions which condition and control the progress and goal of civilization:

1. Mediterranean History.
2. European History.
3. American History.

The civilization of the first region culminated in the Roman Empire.

The civilization of the second culminates in the British Empire.

That of the third has not yet culminated but its nature and extent can be predicted.

In connection with the first it is necessary to remember that current continental divisions are of no consequence. The narrow coasts of the Mediterranean form a geographical unit whose separate parts communicate with each other very easily by water and with great difficulty by land. Northern Africa, for example, has a long water-front, but behind is separated from the rest of the continent by the most effective of all natural boundaries, the desert. Palestine, the valley of the Tigris and Euphrates, and Asia Minor, are all cut off from the rest of Asia by the mountains, but have ready egress to Mediterranean lands by the sea. The Southern coast of Europe itself is cut off from the rest of the continent by a mountain barrier extending from the Atlantic to the Black Sea and broken only by the valley of the Rhone, by passes and by the Rumelian gap at Constantinople.

This closed world is one of great beauty, but small extent and resources. The horse, the ass, and the camel were sufficient for all communications by land. There are no great plains. Egypt and Babylonia are the only highly productive districts and both are liable to absolute failure of crops and exposed to plundering foes from without. Apart from these districts the Mediterranean favors the tree and the vine and small cattle, none of which, as sources of wealth, are to be compared with grain and heavy food animals produced in agricultural regions. Moreover, this part of the world is without great mineral wealth. The genial climate and the water highway were its great advantages in the early history of the races.

Notwithstanding these defects as compared with countries now known to us, this was a good place for civilization to begin, and to it we owe the following elements of our higher life:

The use of coined money and weights and measures—Babylonia.
The calendar and the alphabet—Egypt.
Shipbuilding and navigation—Phoenicia.
A moral religion independent of time and place—Judaea.
A faith in reason to solve human problems Greece.
A code of morals for the conduct of nations—Rome.

As soon as all the knowledge and all the arts that conditioned human life and progress in this closed world were united in the possession of a single people, then the utmost that could be accomplished by the human race in that closed world had been done, and the time became ripe for breaking through the Northern barriers into the richer lands of Europe. Although this country had been long exploited at various points by the Phoenicians, Greeks and Romans, still, the great natural obstacles in the way of beginnings and the need of developed arts and organized effort, made its political and industrial conquest impossible at any earlier period. But the accumulated wealth of Rome, commanding all the resources of the civilized area, at last was able to undertake the task. Gaul and Germany, Britain and the valley of the Danube, with the districts adjacent to the Alps, were all conquered, or at least familiarized with the old world and her ways. But the North could not permanently be ruled by the weaker South and the withdrawal of Roman troops from Britain was one of many incidents which indicated that Italy, if it was the political centre of gravity of the Mediterranean lands, was not naturally the centre of Europe. History entered on its second stage when Rome handed over her accumulated experience to the new peoples of the North.

In Northern Europe the conditions are no longer the same. Here there is no point so situated that it commands the whole area. There are natural divisions made by the sea, by mountains and by rivers, but there is no spot so situated in relationship to the rest of the country as Italy is to the Mediterannean lands. Mountains make and preserve Switzerland, it is true; the Rhine separates France and Germany, but very inadequately; the Channel made Great Britain. Still, there is no preëminent situation. Consequently, the history of Europe is a history of war. Europe was conceived in war, has lived for war, and is all the time preparing to die by war. Instead of one government there are five great powers: Great Britain, Germany, France, Austria, and Russia. It is noteworthy that all the Mediterranean states, by reason of their relative poverty, occupy inferior places. Of the five powers, Great Britain occupies a superior, not a preëminent geographical situation, and therefore she achieved the maximum degree of success among European nations.

Europe, true to her origin and history, has given to the world chiefly the following:

Gunpowder and high explosives, vessels of war, Gatling guns and other artillery.

As the heirs of Greece and Rome: The printing press, Representative government.

It is in point to observe that it makes little difference if gunpowder was not invented in Europe and representative government had its seed in a Germanic institution. The use of explosives attained its completest development under conditions that were peculiar to Europe and we must remember that no matter who supplied the ammunition, Europe made the mechanical contrivances that rendered it available for killing men. In like manner that feeble but fruitful seed of representative government that is known to have existed among our Teutonic forefathers, might have, and probably would have, proved all sterile had it not fallen in that good ground prepared by the institutions that came from Rome. As for the printing press, if Europe devised and manufactured the metal part, it was admiration of Greek letters that supplied the motive, just as in America the spirit is Boston's, but the work is done in New York. So do our human arts grow by the marriage of ideas.

The American period or Columbian epoch begins nominally with the discovery of America, but does not begin to show its characteristic features until the steam engine is applied to transportation by land and sea. Before this was accomplished the American settlements never were found far from the coasts of the Atlantic and the Gulf. The conquest of this continent was the conquest of space. It is no accident that the telegraph, telephone and the cable belong to us. We had to have them. Our contribution to the world has already been made in these applications of electricity to needs of travel and communication.

In the great civil war in the United States, as Lincoln saw, the issue was not slavery, but whether there should be one government or two in their dominions. The decision was for one and for perpetual peace. America was thus saved from the destiny of Europe and has been free to devote all her energy to the arts of peace.

Here a greater civilization than that of Rome will culminate. America is as much richer than Europe in extent and resources as Europe was richer than the Mediterranean. In America we have a brighter prospect of perpetual peace than any country in the world. With friendly governments north and south of the forty-ninth parallel we shall be able to say forever "Hands off." The best thing that Great Britain can now do is to move the capital to Canada as the capital of Roman Empire was taken to Constantinople. There is room here for all the Britons in the world without coming within some millions of the population of the United States at the present time. Here is material for all industries now prospering in the British Islands. Here she can produce her own food instead of carrying it thousands of miles. Here, in conjunction with the United States, we could guarantee a homogenous population and unilingual population and friendly governments. Except under these conditions it is doubtful whether British supremacy can last, but on this continent it would be certain. Dreadnoughts may keep Germany in her place, but Dreadnoughts will not prevent the surplus of power from accumulating in America. The truth is, that the political centre of gravity will in the end swing to the most favored continent. It is North America that has the greatest capacity for feeding and employing men, and here physical features invite peace and equality among its citizens. Europe is relatively small and unproductive and is condemned by geographical conditions to differences of race, language and advantage; her troubles are Balkan troubles, written large, and are just as incurable. Sooner or later the laws of nature will insist that the political centre of gravity shall be found in the place that has been set for it; or our civilization will go to ruin, which is possible.

COMMERCIAL SECTION.

COMMERCIAL ASSETS.

J. F. Wildman, Office Specialty Co., Wellington Street W., Toronto.

Fellow Teachers,—As a business man, I feel entitled to thus salute you.

The world of business is one of constant study and teaching.

Principles—Precepts—Practices.

Where two or more persons are associated together in a healthy business, their relations must be more or less didactic, and the greater the Company or Corporation the greater must be the proportion of this giving of instruction.

Commercial Success. To be a complete Commercial Success a person should possess various qualities to a marked degree.

The faith of a martyr who will die if need be, rather than relinquish or give up what he is trying to accomplish.

The dauntless courage of the early navigators who set out to conquer the unknown.

The intrepid daring of the explorer who faces the unseen.

The fervent zeal of the missionary whose cause is high.

The bravery of a soldier who will dare and die for home and country.

The endurance of a stoic.

The charity of a true Christian.

The wisdom of a Solomon.

A product is no bigger than the individual producing it, and usually shows the individual characteristics of the creator.

World's Debt to Commerce. The world owes a great debt to trade and commerce. Both sacred and secular history testifies to its far-reaching influence as a conquering and civilizing agency.

Its power in standardizing and establishing certain world-wide usages is now well known. Such as: Counting, use of weights and measures, the use of money as a medium of exchange and measure of value, law as a rule of action, and many other things.

Commerce has forced the adoption of these trade rulings (business, if you will), and has created the *necessity* which has brought about so much that is quite universally recognized and used, yet we hardly credit the creator and rarely give it its true place of worth.

We must freely admit that early trade individuals had dispositions which appear to us as predatory, and we are disposed to criticise the nature of the powers they used.

We must confess that modern trade has not reached the millenium in this respect, hence we must teach fairness and justice in business, to all pupils that come under our care.

The sense of fairness must be constantly cultivated for a long, long time. We are none of us near perfection in this respect, even yet.

Historical Business. The history of business or trade shews it forcing, by necessities, law, the genius of invention; the rapid pushing forward of buildings in cities with their beautiful structures adorned by the best skill of their age, as an advertisement to draw visitors, and secure more people to trade; the construction of ships for conveying goods, and later on, railways, even now aerial, telephones, wireless telegraph, and even telepathy, is in sight.

All follow in the train of trade. Business made it possible by furnishing a motive.

Business, A Nation Builder. We may say business has built up nations—established governments have in every progressive country shown their interest in trade, and acknowledged its importance by appointing Departments of Business, or Trade and Commerce, both domestic and foreign.

Taking the number of people engaged in the many branches of commerce, and their adjuncts, shews that business ranks high in the scale as an occupation, and is, indeed, a most important and worthy one.

Armies and navies are kept to preserve and defend the peaceful following of trade and its kindred relations.

Nations are big as their trade is large.

It is not my purpose, nor the province of this paper to take up or discuss in any way the acquisition, accumulation or preservation of material wealth as a factor of vital importance in our world's progress, or in just what way and place it should be accumulated, held and controlled, how much per capita, etc. That is more of a socialogical question.

I have tried to show the place business holds and has held in moulding affairs of mankind, even if the tradesmen and nation of shop-keepers have not been accorded the rightful standing, their work stands as a monument for all time.

There is a saying—"Trade follows the flag." Is it not true that trade pushes the flag forward, enlarging the boundaries of its domain?

Cosmopolitan Character. Business offers such a variety of forms and usages that in making a choice one is not confined to a solitary groove. There are many channels, giving a spice to the life.

Also, it is very cosmopolitan, giving the broader vision.

Nearly all the aforesaid, you will notice, has been laudatory of commercialism. That is my object and purpose.

Commercialism Ranks High. Why you ask? I certainly would accord to the teaching of business a proper place in every school, college, university and institution of learning.

Let it occupy a large share in the curriculum of study, along side of arts, science, and (so-called) learned professions.

At the present day, a commercial education is absolutely necessary for the true success of the man of arts, science, for the professions, or even men of letters.

Dignity of Business. Therefore, ought we not to give "Commerce" a place of dignity, and do our utmost, one and all, once and for all, to raise its standard higher, by teaching the right principles that underlie business structures, which stand so that they will be generally known and understood. This is a common need, and it touches every individual.

Milton, Burns, Goldsmith, Poe, and many I could name, were brilliant men of letters, yet lacked commercial assets, which hampered their very genius, and robbed the world, perhaps, of some of their best. I do not think genius only exercises her best talents from necessity alone. Do you?

Merchant princes have founded many places of learning, and endowed them liberally. For example: Stephen Girard, Philadelphia, U.S.A.; established and perfected, and perpetually endowed Girard College—nearly 2,000 students gratuitously kept by the liberal forethought of one successful business man.

What Business has done for the Cause of Education. In our own country stand the names of McGill, Redpath, Macdonald, Sir Donald A. Smith, now Lord Strathcona, Wm. McMaster. Compared with professions, business calls for as high or a higher order of ability, as it has not only to stand alone in the competition, but is unprotected largely by law.

Comparison of Business with Professions. Medicine is surrounded and protected by statutory laws, Medical Councils and Boards.

The legal profession enjoys immunities and privileges of the bar.

The clergy, likewise, by honored custom has many protections.

Business appears to have more liberty, yet it has more responsibility, and the very liberty accorded is a source of grave danger, if proper principles are not taught, inculcated and practised.

What shall we teach? The three "R's"—the time-honored trio, and spelling, this last (according to recognized common usage). A knowledge of arrangement is essential (order, if you please.)

Debit and Credit. A very clear and definite understanding of Debit and Credit, simple, double and single entry, with technical accounts, also a set of card forms, a file or portfolio of business forms, as cheques, receipts, bills of lading, bank forms, etc. Preferably those used locally and from firms known by name to the pupils, or those firms actually in current business.

What balancing really means. How responsibility always means accountability in the final analysis, when the checking up process takes place, and we are trying to make both ends meet. The auditing of our work.

Business Genius. Aside from outbursts of "Business Genius," which crop up every little while and in various and unaccountable places and individuals, which we must put in a special class by themselves, we, as teachers, should study to give the great common majority of students in commerce, who come under our instruction and influence, the following standard recognized principles, which are essential qualities in business life; and the lack of which mar, if not altogether spoil their common chances of success, so it starts to spell failure instead. It must be apparent that most business men must be made, not born to it.

Debit, the thing Received or the Receiver.

Credit, what is Parted With; Or What Produced it.

Start the pupil right. It is important.

First in every human there is a positive quality, and a negative quality. These are two very necessary qualifications, and should be kept sharp and distinct in contrast, not mingled or mixed.

The explaining and teaching of this removes doubt, uncertainty, confusion and fog. In short: Let your yea be yea, and your nay, nay.

In business success there is no room for any half way measures, or veiled meanings—Clear Cut.

The very man who thinks (and thereby deceives himself and others for a time by so thinking) that he can make errors and fix them up, allows a careless mistake to go unheeded at the moment, with the thought of doing it right by and by, never does it.

Do it Right.

Do it Now.

This time, not another or any time, which is no time, as it never comes.

Commercial teachers bear in mind one cannot give answers like the literary parent did to his child, who asked what rule to use in placing "ie" or "ei" in words like believe, receive, etc. The parent replied that many years before he had adopted a safe rule which he had since followed with unfailing success, viz.: to make his "i" and "e" so nearly alike, and leaving the dot over neither, that they would answer either way.

Now, figures won't lie or deceive. There is a total, which always has to be borne in mind, considered and reckoned with. So be correct.

Do it Right First.

Men's Value. A man's value depends on the amount of supervision he requires.

The world's big places are looking for men to fill them, and the men who secure the big prizes are the ones whose each effort is to do a little better than before was their improved best.

"GOOD, BETTER, BEST,
Never let it rest,
Until your good is better,
And your better best."

There is a sentiment to bear in mind.

Teach and impress that good and fairly good are dangerous comparative terms. The world preserves its rich prizes for victors.

Those only win who fight the battle. No victory without a ttle.

Work. Do something, some one thing at a time, and that well ne until the habit is established of always doing well whatever undertaken, so that it gets a grip of the sub-conscious mind, nd well doing first doing, is done without the mental direction nd effort. This is how great men accomplish such an enormous nount of detail that would overwhelm ordinary men.

Get ripened experience of working to a purpose, and not wasting me.

Attention, Concentration, Determination, have a right *Culmina-on.*

If the pupil's minds are properly directed to these points, and ey get securely fastened in their active minds, it will go a long ay to help them in the mastery.

Even a boy engaged on a job should know more of the detail what he is doing than his master who set him to the task. s Carnegie says: "Boss your Boss."

How? By such application and mastery of the fine details that u become indispensible to those engaging your services.

Let us consider a few outstanding qualities which go to make p a 100 per cent. plus business man's commercial assets, which mmand big capital that pays the big dividends, and which are ecessary for every pupil in a Commercial course to thoroughly nderstand, and be well grounded in:

1st:	Be True	50 per cent. plus
2nd:	Be Kind	20 per cent. plus
3rd:	Be Keen	15 per cent. plus
4th:	Be Busy	15 per cent. plus
		100 per cent. plus

Fifty per cent. plus Be True.

Why I give this division 50 per cent. is this: The individual ith true intent has a basis on which you can build a structure orth while.

As Shakespeare says: "To thine own self be true, and it follows s the night the day thou canst not then be false to any man."

The person who has the ability of the order which *wins* must be ue, and if so, will look it, for it will show.

The face, the voice, hearing—all the expressions of life ring true and bear the stamp. The genuine, which ever carries conviction.

Why do I class this quality so high? Simply because it counts high. Consider some of the attributes: Honor, Integrity, Industry, Veracity. In a word, Re-liability.

These are prime essentials of the head on which true business success depends, and are assets 50 per cent. plus.

Bradstreet's record of nearly 2,000 failures in Canada and Newfoundland, 1908, reveal that three-fourths (75 per cent.) were from causes inherent in or proceeding from the individual, while 25 per cent., or one-quarter, were due to causes beyond the subjects' control. Knowledge is power.

These are true statistics—not theory. Can we not teach something from the lesson of others? Character counts. We all have that. But what kind?

A merchant who was shady in his business dealings, advertised for a boy—"Wanted a bright active boy with a character." An alert, bright-faced boy applied, and was favorably considered till he was asked for his character. The boy had none with him, and was told to get it. After a while he returned and was asked, "Have you got your character?" "No," replied the boy, "but I've got yours, and I don't want the job."

Character that is a 50 per cent. plus asset is true and so I might enumerate dozens of qualities—accuracy, application, confidence, purpose, dependence.

A good head is a great birthright. A well-trained intellect is a better fortune than any material wealth without the power to use it.

Be Kind, twenty per cent.

Very few realize how much they owe in business success to kindness, sympathy, courtesy, cheerfulness, humor.

The social side of human nature by the observance of little amenities, tact, and help in an unselfish way as one has the opportunity presented or makes it. This is the side which touches the heart. The very appearance of the kindly person carries sunshine and an atmosphere of charm and favor.

A successful young business man told me that about ten years ago when coming to the city he took a commercial course with W. H. Shaw, of The Central Business College, and that the kindly, fatherly talk and personal interest shown him by Principal Shaw influenced and shaped his course as much, if not more than the class work.

There is sentiment in business. It is full of it, and when not used selfishly or sordidly, helps to soften the hard spots and rough places, where many times all else would fail.

It is the asset, after all, that makes life worth the living.

Let us give it a place in our teaching.

The old saying is true, "Manners maketh the man."

Be Keen, fifteen per cent.

The alert, wide-awake person is the one who sees things to do, sizes up the situation before the dull, sleepy individual realizes or awakens to what is going on or transpiring.

Result. The one who has perception plans, and gets a lead which completely handicaps the slow one.

Push and *Pluck* win. Their average is always sure. They get results. The keen man is the one with initiative.

A job won't get done unless started.

The keen man shows will power, not stolid and stubborn, but electrical and alive. This is where the psychical or spirit side plays a part. Do not be-little or minimize the part our conscience plays in business.

Intuitively, we often act, do things we cannot just explain why; yet are strongly moved to do so, and rightly.

It is to-day being recognized more and more as a commercial asset.

This is an attribute of the mind or mental side.

Be Busy, fifteen per cent.

After all, we need action to do it. Energy to carry out planned work.

Get in the way—the habit of doing things by a system. It simplifies and makes possible the doing of big tasks.

It takes perseverance, and yet it is of no avail unless wisely directed by knowledge.

The geologist knows just where to tap and open the rock, where an ignorant man might pound all day unavailingly.

To keep busy we need to consider our bodies—health.

Many a man has failed because his health failed. There was the weak spot. How much we hear of nervous break downs. There is a reason.

The lack of control in *all* things, and especially eating, drinking, breathing, and we let our thoughts run riot sometimes, is a chief cause. The effect is sure outcome of infraction of well-known hygienic laws, and should be at least taught as part of Commercial course—by warnings pointed out, so they may guard against unsanitary living.

The best cure is prevention by knowledge. Nearly every day we see, hear and read of business downfalls through intemperance, fast living, gambling or profligacy. A useless waste of our powers.

So teach self-control. Be busy at a useful trade is the best way to invest ones' life powers.

You will observe I have touched four general divisions: Head, heart, mind, body, in the make-up of a 100 per cent. business man.

Now our responsibility rests in teaching these facts—not judging a pupil, but helping them to help themselves by guiding and enlightening them on safe and recognized lines of practical every day usage.

THE BANK ACT: IN ITS RELATION TO THE BANKING SYSTEM AND TO SOME CRITICISMS OF THE BANKING SYSTEM.

P. McIntosh, Central Business College, Corner of
Gerrard and Yonge Streets, Toronto.

In the House of Commons, on March 2nd, 1908, Mr. Pringle moved the following resolution: "That in the opinion of this House it is an opportune time to consider the advisability of amending and revising The Bank Act, and that the following among other amendments, should receive consideration. To provide for Government inspection, to provide for more stringent regulations as to circulation, to make provisions as to percentage of capital and reserve that may be loaned to any one borrower, to make provision for percentage that a bank may loan to its combined directors, to limit the amount of interest or discount that banks may contract for, to revise the powers of the Bankers' Association."

In our newspapers from day to day, we read letters and articles which would indicate that Mr. Pringle is not alone in his opinions. So that while we pride ourselves on the soundness of our banking system, it might profit us to learn something of the laws governing that system, and also to understand the trend of these criticisms. The Bank Act will be up for revision next year, and there will be much discussion on these points.

The Bank Act.

(References are to Revised Statutes, 1906.)

The Act incorporating a Canadian Bank is a simple affair.

An Act to incorporate the..............Bank.

WHEREAS the persons hereinafter named have, by their petition, prayed that an Act be passed for the purpose of establishing a bank in..............., and it is expedient to grant the prayer of the said petition:

Therefore His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. The persons hereinafter named, together with such others as become shareholders in the corporation by this Act created, are hereby constituted a corporation by the name of..............., hereinafter called the Bank.

2. The capital stock of the Bank shall be........dollars.

3. The chief office of the Bank shall be at................

4. ....shall be the provisional directors of the Bank.

5. This Act shall, subject to the provisions of section sixteen of the Bank Act, remain in force until the first day of July, in the year one thousand nine hundred and eleven.

A short study of this form will explain a few things necessary to our understanding of the Canadian banking system.

1. It needs a special Act to incorporate a bank.

2. This Act must be an Act of the Parliament of Canada.

3. A bank is simply a joint stock company with a capital stock divided into shares.

4. As in any other joint stock company the affairs of a bank are managed by a board of directors elected by the shareholders from among themselves.

5. Further, it will be understood that once incorporated a bank is subject to the provisions of The Bank Act. This Act is revised every decade, and the present Act remains in force until July 1st, 1911. Every bank charter is therefore made to expire on the same date.

Clause 5 of the special Act of incorporation of any bank refers specifically to section 16 of The Bank Act, which states as follows:

"If the bank does not obtain a certificate from the Treasury Board within one year from the time of the passing of its Act of incorporation, all the rights, powers and privileges conferred on the bank by its Act of incorporation shall thereupon cease and determine, and be of no force or effect whatever."

From which we gather that not only must an Act of Incorporation be secured, but also a certificate must be secured from the Treasury Board, (the financial committee of the Privy Council of Canada) before a bank is permitted to issue notes or commence the business of banking.

If the Treasury Board decides to issue this certificate it must be done within one year from the passing of the Act of Incorporation. It must be shown to the satisfaction of the Treasury Board, however, that at least $500,000 of the capital stock has been *bona fide* subscribed, that on this a sum of at least $250,000 has been called in, and that this amount in gold has been paid to the Minister of Finance, and that a meeting of the subscribers has been held and a board of not less than five directors has been elected.

If the Treasury Board issues the certificate the bank is ready to begin business and the Minister of Finance must return to the bank the money deposited with him, after deducting therefrom $5,000 as the new bank's subscription to the Circulation Fund, which we will explain later.

The business in which a bank may engage is specified as follows in section 76 of the Act:

"The bank may,

(*a*) Open branches, agencies and offices;

(*b*) Engage in and carry on business as a dealer in gold and silver coin and bullion;

(*c*) Deal in, discount and lend money and make advances upon the security of, and take as collateral security for any loan made by it, bills of exchange, promissory notes and other negotiable securities, or the stock, bonds, debentures and obligations of municipal and other corporations, whether secured by mortgage or otherwise, or Dominion, provincial, British, foreign, and other public securities; and,

(*d*) Engage in and carry on such business generally as appertains to the business of banking."

The bank has also a privilege of note issue as specified in section 61 of the Act.

"The bank may issue and re-issue notes payable to bearer on demand and intended for circulation: Provided that,

"(*a*) The bank shall not, during any period of suspension of payment of its liabilities, issue or re-issue any such notes; and,

"(*b*) If, after any such suspension, the bank resumes business without the consent in writing of the curator, hereinafter provided for, it shall not issue or re-issue any of such notes until authorized by the Treasury Board so to do.

"2. No such note shall be for a sum less than five dollars, or for any sum which is not a multiple of five dollars.

"3. The total amount of such notes, in circulation at any time, shall not exceed the amount of the unimpaired paid-up capital of the bank."

Let us look for a moment at some of the ways in which the ordinary individual becomes concerned with the business done by a bank. Let us in imagination enter the office of a newly incorporated bank on the morning of its opening day. Under present day conditions you may expect to see the office fitted out in palatial style. In their respective places you will find manager, accountant, teller, and ledger keeper, all ready for business. In walks a prospective depositor and a conference with the manager leads to an account being opened. The customer is introduced to the teller and hands over his deposit. Let us suppose that he has it all in bills. There may be Bank of Montreal bills, Bank of Commerce bills, Bank of Toronto bills, in fact bills of any of the twenty-nine banks doing business in Canada. All these will be quite readily taken by the new bank. In return the depositor will get a pass book showing his deposit placed to his credit, and also a book of blank checks indicating that the bank stands ready to honor his cheques to the amount of his deposit.

When our depositor goes to his office he will possibly find a necessity for making a payment. This he does by writing a cheque. Let us suppose that the holder of the cheque takes it to the bank and cashes it. Here is where the new bank gets a chance to issue some of its notes. Suppose the check calls for $100. The holder will get for it, say, twenty brand-new five dollar bills. Mark you these will not be some of the bills taken in from the depositor, but bills of the new bank, now issued for the first time.

If you follow the man who cashed the cheque you may find as he goes along the street that he uses some of the bills to pay a debt at his grocer's, some to pay his butcher, and so on. Sooner or later the bills of the new bank thus become part of our currency and find their way all over Canada.

From this simple illustration it will be seen that the average person who is interested in a bank is interested either as a depositor or as a note holder. Of course a man may choose his bank when selecting a place for opening an account, but it is pretty nearly a necessity that he choose some bank. In the same way a man may, in receiving payment for a debt, elect to take nothing but legal tender and refuse to take bank bills of any kind, but no one thinks of doing this.

The question may naturally arise: What is the position of the note holder and of the depositor?

In the first place we may note that there is not one dollar of reserve, either in gold or anything else, required by The Bank Act to be kept behind either deposits or note issue. Of course our Canadian banks hold cash reserves. A glance at the Government bank returns for any month will show "Cash Reserves" noted as one of the principal assets. Cash reserves, according to Government returns, include specie, Dominion notes, notes and cheques, loans and balances due from other banks. Only the first two of these, specie and Dominion notes, are legal tender.

Section 60 of The Bank Act specifies that the bank shall hold not less than 40 per cent. of its cash reserves in Dominion notes, but there is no section which says that the bank must hold any reserve at all.

Does The Bank Act then specially recognize or protect the depositor or the note holder? No and yes. The depositor is apparently looked upon as one who can make a choice and must be responsible for his choice. There is no particular protection for him. The note holder, as we have explained, is in measure bound to take the notes and the Act has taken special notice of him.

In section 64 of the Act we find mention of the bank circulation redemption fund. It is required that every bank shall keep on deposit with the Minister of Finance an amount equal to 5 per cent. of its average note circulation. This fund is available only in event of the suspension of a bank of payment in specie or Dominion notes of any of its liabilities Should the directors of such a bank or the liquidator or other proper official fail to make arrangements within two months for the payment of the notes of the suspended bank, then the Minister may make arrangements for their payment out of the circulation fund. This fund can scarcely be considered a note reserve because a bank has no recourse to it until it has gone to liquidation. With circulation figures as they are at present, five millions would be an outside figure for this fund.

In striking contrast to this we find by The Currency Act that when the Dominion Government issues its notes it must hold a substantial reserve in gold or its equivalent as a security for these notes. For the first $30,000,000 of notes issued the Government must hold 25 per cent. of the face value in gold or its equivalent. For any amount in excess of $30,000,000 the Government must hold dollar for dollar in gold or its equivalent. Thus, if the government note circulation reaches $60,000,000, the gold reserve is $37,500,000 or 62½ per cent. of the circulation. But then Dominion notes are legal tender and bank notes are not.

It is only fair to the banks, however, to say that never since its establishment, in 1890, has it been necessary to call upon this fund. On only one occasion since Confederation have the note holders of a chartered bank lost anything. In 1879 the Mechanic's Bank of Montreal came to a rather discreditable end, and the note holders received only 57½ cents on the dollar.

It was in the next year, 1880, that, at the regular decennial revision of The Bank Act, the notes of a bank were made the first claim on its assets. Section 131 of the Act sets forth as follows:

"In the case of insolvency of any bank,

"(*a*) The payment of the notes issued or re-issued by such bank, intended for circulation, and then in circulation, together with any interest paid or payable thereon as hereinbefore provided, shall be the first charge upon the assets of the bank;

"(*b*) The payment of any amount due to the Government of Canada in trust or otherwise, shall be the second charge upon such assets;

"(*c*) The payment of any amount due to the government of any of the provinces, in trust or otherwise, shall be the third charge upon said assets; and,

"(*d*) The amount of any penalties for which the bank is liable shall not form a charge upon the assets of the bank, until all other liabilities are paid."

In speaking of the assets of the bank it will be understood that they include the double liability of shareholders, as provided for in section 125 of the Act:

"In the event of the property and assets of the bank being insufficient to pay its debts and liabilities, each shareholder of the bank shall be liable for the deficiency, to an amount equal to the par value of the shares held by him, in addition to any amount not paid up on such shares."

The security to the note holder may therefore be summed up in the fact that the notes of a bank are a first mortgage on its assets endorsed by the double liability of its shareholders.

Since the depositor must take his chance, it may be interesting to know how he has really fared in the history of bank failures.

In 1905 there appeared in a local paper a list furnished by Mr. Byron E. Walker of banks which failed since Confederation. There were eighteen of them. Eight were noted as having paid depositors in full. Three had paid depositors ( ). One had paid 57½ per cent., another 66½ per cent., another 10 6/10 per cent., another 92 2/3 per cent. The Bank du Peuple, which had failed in 1895, was noted as having paid 75¼ per cent. to date (ten years after failure). The Banque Ville Marie, which failed in 1899 is noted as having paid 15 per cent to date. This bank was finally wound up about the end of 1905, and paid 30 per cent. The Bank of Yarmouth is noted as being in liquidation. It is still so and with a poor lookout for depositors.

Since 1905 we note the following changes. The Ontario Bank was absorbed by the Bank of Montreal in October, 1906. It practically failed, but as it was the depositors lost nothing. In January, 1908, the Sovereign Bank passed out of existence in much the same way, its business being taken over by a number of banks. The depositors lost nothing. In April, 1908, the Banque de St. Jean failed and in June, 1908, the Banque de St. Hyacinthe also failed. It is not known as yet how depositors in these last two cases will fare.

"SOME OF THE CRITICISMS WHICH ARE LEVELLED AT OUR BANKS AND BANKING LAWS."

1. *Lack of Government inspection.*

We quote the following from a letter written by Mr. H. C. McLeod, general manager of the Bank of Nova Scotia. It is one of the several written by him at the time of the Ontario Bank suspension:

"In 1880 there were in existence in Canada forty-one banks; since then seven have been incorporated, and have commenced business, making a total of forty-eight banks. Of this total, twelve have failed and some others have saved themselves by amalgamation. The failures are therefore 25 per cent. within a period of twenty-six years." Since Mr. McLeod wrote this, two more banks have failed and one has disappeared through amalgamation, thus raising the failures to almost 30 per cent. (down to September, 1908).

Concerning these failures Mr. McLeod says: "Most if not all of the above mentioned failures were fraudulent, and it is now plainly evident that a few hours' examination by a skilled banker would have disclosed an insolvent condition, in any one of the banks, years before it collapsed."

Mr. McLeod further states, that during the same period the failures of National Banks in the United States were only 5 per cent., while the failures of all others in the United States in the last 43 years were only 17½ per cent.

This states the case in a practical way for those who favour government inspection. The opinion expressed can scarcely be said to be a biased one.

The bank statement for January, 1908, shows thirty-four banks in operation in Canada. Three out of the thirty-four failed, or 8.82 per cent.

The broad general defects springing from lack of inspection are stated. One bad result may be noticed in particular. It would appear that no reliance can be placed on bank statements.

Sections 112, 113 and 114 of The Bank Act set forth the details of the various returns that all banks are required to make to the Minister of Finance. Sections 147 to 153 inclusive, are taken up with a statement of the penalties that are to follow failure or deceit in this respect. We may also note that the banks themselves make a regular inspection of their different offices. The inspector in every case is an officer of the bank. There is, therefore, no independent check on the figures of any bank statement.

When the Banque Ville Marie failed, it was discovered that while the paid up capital was five hundred thousand dollars ($500,000), and the note issue should therefore not exceed this figure, still at the time of the failure and for a considerable time before, its outstanding notes exceeded this sum. In other words, their statements as to circulation were unreliable. It is only fair to the banks to state that the Canadian Bankers' Association, which is recognized by The Bank Act, has taken means to prevent a recurrence of over-circulation. This action is, of course, a private action undertaken by the association, and not particularly at the request or demand of the Government.

In the case of the Ontario Bank, which failed in 1906, it was found that the failure was due to the manager speculating with the funds of the bank. This speculation began in 1901. His statements had been regularly falsified during this period by inflating the item "current loans," and including under the head "other securites" large sums which had no existence.

One cannot too readily say that Mr. Pringle must be wrong when he stated on the floor of the House of Commons, in March, 1908, that Canadian banks had two hundred million dollars ($200,000,000) of the savings of the people of Canada invested in foreign securities, notwithstanding the Government returns which placed this at only one hundred million, $(100,000,000). Of course the mere statement does not prove the fact, but Mr. Pringle has the records to which we have referred as an evidence of the fact that bank statements are not always to be relied upon.

One cannot wonder at the people being skeptical when they read in the returns of a great bank, that all its bank premises are valued at only $600,000. It was not long ago that the papers contained a description of the new head office which the bank had erected in Montreal, and which alone was estimated to cost far more than this figure. In fairness to the bank it may be said that the undervaluation of assets to provide a secret reserve is not exactly an unknown thing. Dicksee, the English authority on auditing, says on this point:

"The object of all secret reserves is to equalize dividends, or to equalize profits; and, in the case of banks and similar institutions, it must be admitted that, were accounts published showing considerable fluctuations in the amount of profits earned, the result might readily be to produce a feeling of disquietude which was altogether unwarranted by the actual facts. More particularly in the case of banks largely effected by fluctuations in exchange does it seem desirable that the temporary effect of such fluctuations should be excluded from published accounts. The understating of assets in profitable years (which is the ordinary means of providing a secret reserve) clearly contemplates, however, the possibility of their being written up in less profitable years, when it may be desired not to disclose the fact that the profit earned has been less than usual, or perhaps even insufficient to cover the proposed dividend.

"Opinions differ greatly as to the extent to which the formation of secret reserves is permissible; but it is thought that within reasonable limits, the matter is one resting with the directors rather than with the auditor, so long as there is no suspicion of bad faith. It is when it is sought to have recourse to a secret reserve by writing up the assets which have hitherto been undervalued that the position requires the most serious consideration of the auditors."

La Banque St. Jean failed in April, 1908. While liquidation is not completed, it has already developed that some five hundred and twenty-three thousand dollars ($523,000) of the assets set down in the monthly returns as "current loans," are worthless.

The failure of the Banque Ville Marie made it necessary to call upon the shareholders, under the double liability clause. As the bank had a paid up capital of $500,000, it might be reasonably expected that something near $500,000 would be collected. Instead of this sum, only $96,000 was collected, less than 1/5. It was found that $200,000 of the stock had been bought by the bank itself to support the stock in the open market. The greater part of the remaining $300,000 was held by people from whom the double liability could not be collected, or at least was not collected.

The failure of the Ontario Bank brought out the fact that $230,091.72 had been lost by the bank purchasing its own stock.

The question naturally arises. If these statements cannot be relied upon, what good purpose do they serve?

2. *The Government Derives no Revenue from Bank Note Circulation.*

The person who gets a loan of money from a bank, pays interest on that loan, and pays it in advance. For instance, if I take to a bank a note for One Hundred Dollars ($100) drawn at one year, and get it discounted at 7 per cent., it means that I get $93 of their notes and leave my One Hundred Dollar Note as security. At the end of one year, I redeem my note by paying for it One Hundred Dollars. The interest rate that I pay is really more than the discount rate of 7 per cent. The bank, on the other hand, pays no interest on the notes which it has given me, and which I help put in circulation.

For illustration purposes we may take $70,000,000 as a fair average estimate of the bank note circulation, month by month, throughout the year. At the rate of 5 per cent. the interest on this would be $3,500,000. This is practically clear profit to the banks, and is something that no other business can make. As $100,000,000 is a good outside figure for the total paid up capital of Canadian banks there is material right here for a dividend of 3½ per cent. without much effort.

In the United States, they tax their banks one-half per cent. each year on their circulation. If this were done in Canada there would be a revenue of $350,000 per year, and there would be a check on the circulation.

3. *There is not Sufficient Restriction on the Amount that Banks are Permitted to Loan to Directors or Customers.*

Section 93 of the Ontario Companies' Act says, "No loans shall be made by the Company to any shareholder." Section 29 of the Dominion Act says, "The Company shall in no case make any loan to any shareholder of the Company."

Now, it is scarcely fair in a banking business, which has for one of its main objects the loaning of money, that no loan should be made to shareholders, but there are those who believe that some limit should be placed on the amount that may be loaned by any bank, to its directors especially, or to companies in which the said directors are interested.

Section 18 of the Bank Act says, "The shareholders of the bank may regulate by by-law the following matters: (*h*) The amount of discounts or loans which may be made to directors either jointly or severally, or to any one firm or person, or to any shareholder, or to corporations." From the standpoint of the bankers, this is sufficient, but the trouble seems to be that the shareholders interest themselves very little in making by-laws or doing anything else except at the bidding of the directors.

At the annual meeting of one of our great banks, December, 1908, twenty-seven people were present, ten of these being directors. This is from the newspaper reports, which seemed to be quite uniform. As 750 shareholders is a fair average for each of our Canadian banks, it will be seen what a lively interest shareholders take in an annual meeting.

The failure of the Bank of Yarmouth illustrates the necessity for restriction along the lines of loans that may be made. The main, if not the only cause of failure, was the large loans and advances made to one mercantile house. The total indebtedness of this house to the bank was over $480,000. When the firm failed the bank failed also.

In March, 1908, a law was passed in the United States prohibiting any National bank from investing its funds in stocks or other securities of a corporation, the officers or directors of which are officers or directors of the bank—penalty 1 to 5 years imprisonment.

4. *There Should be a Requirement of Reserve of Legal Tender Against Liabilities.*

Perhaps the case for the Canadian banks in this matter is as well stated as possible, in an address delivered by Mr. D. M. Stewart, then General Manager of the Sovereign Bank, before the Canadian Club of Boston, in April, 1906. Mr. Stewart, in speaking of the differences between the Canadian and the American systems, said in part as follows:

"One of the most important points of difference in the two systems is the treatment of the bank's cash reserve. I feel that in taking up this portion of the subject and discussing it in the United States, I am quite likely to approach "thin ice." In this country the law requires a fixed percentage of cash to be maintained against deposits. In New York and other "reserve centres," the proportion is 25 per cent., and at other places 15 per cent. In Canada there is no cash reserve fixed by law. I mentioned that every bank maintains a cash deposit with the government of 5 per cent. of its outstanding circulation, and this fund is created applicable, if necessary, to the redemption of the notes of any one bank. This is the only compulsory reserve, but it is not applicable to deposits. Of course, every Canadian bank holds a cash reserve, against its deposits, but the amount of proportion of such reserve is not fixed by law, this being left entirely to the banks themselves. The business and nature of the deposits of our banks differ so materially that a reserve of 15 per cent. or 25 per cent. might be wholly inadequate in one case, while the same proportion would be ample in another. The manufacturing, commercial, and agricultural interests in Canada are so inseparably connected with its banking system, that apart from higher motives, the mere instinct of self-preservation and desire to succeed in business, make it incumbent upon the chartered banks to maintain proper reserves; to be prepared for panics and periods of trade depression; and to manage their affairs generally along safe and conservative lines."

"Our experience, as well as that of the United States, has, I think, shown the wisdom of leaving the matter of cash reserves to the prudence of the bankers, and the comparative freedom allowed the Canadian banks in this respect and in the conduct of their business generally, has gone far towards the establishment of our banking and currency on the sound and efficient basis on which we find it to-day."

Those who criticize Canadian banks in this matter claim that their percentage of legal tender reserve is the lowest of any country in the world. J. J. Harpell, B.A., in a pamphlet on Canadian

Banking and Insurance, issued last year, gives the following figures to show the percentage of reserve to liabilities held by four foreign banks:

Bank of England, August 26, 1908	57.6
New York Associated Banks, August 29, 1908	29.6
Imperial Bank of Germany, August 7, 1908	52.3
Bank of France, August 13, 1908	74.7

By way of comparison he notes the percentage of reserves in legal tender to liabilities of each Canadian bank:

It will be noted that Mr. Harpell gives the percentage of *legal tender* reserves held by our banks. This is the only fair way to compare with the other banks mentioned, because in quoting their reserve they give legal tender figures.

Bank.	Percentage of reserve to liabilties on		
	Sept. 30th, 1907	Dec. 31st, 1907	July 31st, 1908
Imperial Bank of Canada	21.0	18.9	19.4
Bank of Nova Scotia	14.6	19.2	14.6
Royal Bank of Canada	13.3	14.5	13.4
Dominion Bank	11.4	14.4	13.5
Union Bank of Canada	10.5	10.1	10.5
Merchants' Bank of Canada	9.9	10.1	10.1
Bank of Hamilton	9.6	10.0	9.6
Traders Bank of Canada	9.6	10.5	10.6
Union Bank of Halifax	9.3	9.9	10.9
Farmers' Bank	9.0	8.4	7.7
Canadian Bank of Commerce	8.9	9.3	12.4
Bank of Toronto	8.7	9.1	12.1
Bank of Ottawa	8.6	7.8	12.9
Molsons Bank	8.5	8.2	9.2
Bank of New Brunswick	8.3	9.3	12.1
Bank of Montreal	8.0	8.3	7.7
Eastern Townships Bank	7.9	7.4	7.6
Sterling Bank of Canada	7.8	9.6	9.6
Crown Bank of Canada	7.7	7.5	5.5
Bank of British North America	7.7	10.2	7.9
Metropolitan Bank	7.5	10.6	7.0
Quebec Bank	7.4	7.7	8.8
Banque Nationale	6.6	4.8	7.6
Sovereign Bank	6.2	4.1	Failed.
Standard Bank	5.7	6.5	1.9
Northern Bank	5.4	9.5	....
Banque de Hochelaga	5.2	5.4	9.0
Home Bank	4.9	5.7	8.1
St. Stephens Bank	4.9	5.6	4.9
Banque de St. Jean	4.7	2.3	Failed.
Banque de St. Hyacinthe	3.2	3.2	Failed.
United Empire Bank of Canada	1.6	1.2	1.9
Banque Provincial de Canada	1.2	1.3	1.7
Western Bank of Canada	1.2	1.5	1.4
Average	9.3	10.1	10.4

"Cash reserves" and "reserves" are terms rather loosely used in Canada. In the Government bank returns, which one may see monthly in some of our newspapers, the assets are divided as follows:

Cash Reserves; Investments, Bond and Stock; Call Loans in Canada; Call Loans Elsewhere; Commercial Loans.

As an explanation of the term "Cash Reserves" we also find this: "Cash Reserves include specie, Dominion notes, and cheques, loans and balances due from other banks." Perhaps the bankers' idea of what the term includes will be well illustrated by the following quotation from a speech made by Sir Edward Clouston, Manager of the Bank of Montreal: "I wish to allude briefly to some criticism which has recently been made in the press respecting the practice of Canadian banks in keeping a portion of their reserves in other countries. The aggregate of call and current loans by the banks elsewhere than in Canada, approximating at times $100,000,000, has been cited as evidence that these institutions are not serving the needs of Canadian borrowers as freely as they might, were all this money loaned in the country. In the first place, let me point out that a year ago when these loans, abroad in England, the United States and other countries, amounted to $96,000,000, the banks had deposits made with their foreign branches of $55,000,000; so that the actual net amount of foreign loans was only some $41,000,000. Every dollar of this money is loaned on call at short date, upon the most ample security. It constitutes a part of the reserves of Canadian banks."

The same idea is evidently held by financial writers in the local press. In an article in *Toronto Saturday Night*, in the issue of January 2, 1909, we find the following quotation in an article headed "Our Large Reserves." "Counting in specie, legals, and calls on New York and London, the percentage of reserve on July 31st was 25.33; by November it had increased to 29.75.

But even with a common basis for comparison it is scarcely fair to compare the individual Bank of England with the banks of our system. The comparison with the New York Associated banks is a fair one. The Bank of England, the Bank of France and the Imperial Bank of Germany occupy a position with regard to the government and to legal tender issues that finds no parallel in Canadian banking.

Concerning the reserves held by the bankers of the United Kingdom, Jevons, in his "Money and the Mechanism of Exchange" says as follows: " It is important, but very difficult to decide, what is the amount of real cash held by the bankers of the United Kingdom in readiness to meet their liabilities. Many banks publish balance-sheets professing to show the reserve of ready money. I have already remarked (pp. 242-245) upon the ambiguity which attaches to the words money and cash as commonly used; and, when we inquire into the nature of the banker's ready money, it is found to consist in a great degree of money invested in government securities, deposited with other bankers, especially the Bank of England, or held 'at call,' that is, lent to speculators who invest it in negotiable securities. From the published balance-sheets we thus get no indication of the real metallic reserve of the country, available for the payment of foreign debts."

"Mr. R. H. Inglis Palgrave, in his important "Notes on Banking," published both in the *Statistical Journal* for March, 1873 (Vol. xxxvi. p. 106), and as a separate book, has given the results of an inquiry into this subject, and states the amount of coin and Bank of England notes, held by the bankers of the United Kingdom, as not exceeding four or five per cent. of their liabilities, or from one twenty-fifth to one-twentieth part. Mr. T. B. Moxon, of Stockport and Manchester, has subsequently made an elaborate inquiry into the same point, and finds that the cash reserve does not exceed about seven per cent. of the deposits and notes payable on demand. He remarks that even of this reserve a large proportion is absolutely indispensable for the daily transactions of the banker's business, and could not be parted with. Thus the whole fabric of our vast commerce is found to depend upon the improbability that the merchants and other customers of the banks will ever want, simultaneously and suddenly, so much as one-twentieth part of the gold money which they have a right to receive on demand at any moment during banking hours."

5. *The Branch System has not Justified its Existence.*

When any comparison is instituted between the Canadian banking system and the American or any other system, the branch feature is one on which the upholders of the Canadian system are prone to pride themselves. It is claimed for the branch system that it gives the small town a bank with all the strength, backing, and responsibility of the parent institution in the large financial centre; that it equalizes rates of interest; that it gives the small town the services of a trained banker; and that it tends to distribute the available funds of the country, collecting them where they have abundance and loaning them where most needed, or in the language of a famous Canadian banker, it "enables capital to march automatically across the continent."

Those who see reason to criticize the branch system claim that the march of capital is not the picturesque affair that we would be led to believe. There are those who claim that it rather takes the form of a draining of the resources of the entire country into one or two centres from there to be distributed to any place but to suffering Canadian localities.

The view of these people is perhaps well explained in an address delivered by E. D. Hulbert, before the American Institute of Banking, in which he says:

"The test of the soundness of these claims should be the practical working of the system where it is in operation. No one will deny that the financial system of a country must have a great influence upon its growth and prosperity. If the Canadian system is really better than ours, the superiority ought to manifest itself somewhere, either in the superior growth and prosperity of communities in Canada having resources and natural advantages similar to our ours, or in the greater prosperity of the banks. I believe that, almost without exception, Canadian towns outside of the financial centres have shown development and prosperity inferior to towns with similar natural advantages in this country.

"While a considerable part of the Canadian territory is not capable of much development, it is astonishing how slowly the best parts of it have developed; and I believe that this inferiority as compared with the United States is largely attributable to the difference in the banking methods.

"When you have a big amount to loan you look for some one who wants to borrow on a large scale. For this reason the great Canadian banks have established branches outside their own country—in New York, Chicago, Minneapolis, and other speculative centres, not for the purpose of getting deposits in these centres, where money is plenty, to loan in Canada, where money is scarce, but just the contrary. There is scarcely a community in

Canada, that is not in need of money to develop its legitimate industries, and yet a part of the small savings of these communities is being loaned on the Chicago Board of Trade and the New York Stock Exchange.

"This, however, isn't the worst of it. When a few men are known to control vast sums of money they are constantly beset with importunities and temptations to use this money to promote enterprises outside the pale of sound banking. It is a matter of regret that some of the great Canadian banks appear to have yielded to this temptation. It is reported that one of them is putting large sums into a light, heat, and power company in Sao Paulo, Brazil. Another is promoting a street railway in the City of Mexico. Still others have loaned large sums for construction work on such things as interurban railways of a more or less speculative character in the United States.

"This means that some of the surplus funds of the small Canadian towns are being loaned for development purposes in South America, Mexico, and the United States.

"The Canadian banker will tell you, perhaps, that this is money not needed in Canada and that the home demand is cared for first. But is it impossible to believe that the loanable funds of the Canadian banks could not all be used to advantage in developing the splendid resources of that great Dominion."

The same ideas are expressed in what was intended as a eulogy of our system by Mr. A. B. Stickley, President of the Chicago Great Western Railway, in an address to the American Bankers' Association. Perhaps when it is remembered that in the fall of 1907 our government had to loan our banks some five million dollars ($5,000,000), in order to help move the crops in our own North-West, the eulogy may appear grimly humorous.

"Little Canada, with scarcely five millions of people occupying the stingy fringe of perpetual ice, with meagre agricultural resources, few mines, and only rich in her forests of timber, was able to loan the credits to move the abundant harvest of Minnesota and Dakota, solely by reason of her system of banking."

The Standard Bank bought out the Western Bank in November, 1908. The following editorial from the "Stratford Beacon," of November 26, 1908, is to the point in this connection:

A Bank Amalgamation to be Regretted.

"In other columns of this issue the story is told of the origin and development of the Western Bank, now amalgamated with the Standard Bank. It was started in Oshawa when the town was almost in a state of bankruptcy, and when the two local agencies of well established banks would extend little or no assistance to the struggling manufacturers and business men. Its object was to aid local industries, and so carefully was it managed that it not only put the manufacturers on their feet again, making the town one of the most prosperous in the province, but made more money, in proportion to its paid up capital, for its stock-holders than any other bank in the province.

"We are sorry to see such a bank wiped off the list of our financial institutions, even to be amalgamated with a bank controlled by the same interests, for it was a standing example of the benefits to a community of a bank originated to develop local interests and carried to a successful issue. The large banks with their agencies do not do this to anything like the same extent. Their policy is to draw money from their agencies for investment in the large centres, where their directors live. The controlling interests naturally have little or no regard for the outlying points where the agencies are located—they are circumscribed by their own environment.

"More local banks built on the lines of the late Western Bank of Canada, located in various parts of the province, in the smaller cities and towns would build up new financial centres of which the country is greatly in need."

6. *Canadian Banks are more Inclined to Help Foreign Enterprises than to Assist Canadian Development.*

The opinion of Mr. Hulbert already quoted, gives an American view on this point. The failure of the Sovereign Bank only serves to give point to his remarks. That bank was involved disastrously in an American traction company of very questionable soundness.

It may clear the field of a common misunderstanding if the distinction between "call" loans and other investments is kept clearly in mind in this connection. It is a common practice of Canadian banks to lend large sums on call in such centres as New York. Stock operations give rise to a good demand for ready money at high rates of interest. This affords a means of utilizing the cash reserves of our banks which must otherwise lie idle in bank vaults. as there is not such a great demand for call money in Canada. So long as cash reserves only are employed in this way the practice seems to be fairly justifiable, because these loans can be called in at any time and are amply secured. The cash reserve is therefore always available in cash. Now, "call" loans are not the kind that people want for development of industries or for moving wheat crops. The cry that our banks were refusing to provide the money necessary to remove the crop in the fall of 1907 and had millions of money to lend in New York for stock operations, indicates a confusion of ideas.

But banks made other loans besides "call" loans, and if it can be shown that loans for crop moving and legitimate development and enterprise in Canada were not forthcoming while Canadian banks had millions sunk in industrial enterprises in Brazil, Cuba, Mexico, and the United States, then we have criticism to the point.

If crops cannot be moved in the West because money is needed for Sao Paulo, Brazil; if silver mines in Cobalt cannot be developed because Street Railways in Mexico need help; and if Canadian municipal debentures are going a-begging at an abnormally high rate of interest because Chicago and Milwaukee Electric is to be supported, our banks have indeed something to answer for.

7. *The Canadian Bankers' Association has Altogether Too Much Power.*

In winding up the affairs of an insolvent bank the Association is supreme, as sections 117 and 119 of the Bank Act show:

"117. The Association shall, if a bank suspends payment in specie or Dominion notes of any of its liabilities as they accrue, forthwith appoint a curator to supervise the affairs of such bank.

(1) The Association may at any time remove the curator, and may appoint another person to act in his stead.

"119. The curator shall assume supervision of the affairs of the bank, and of all necessary arrangements for the payment of the notes of the bank issued for circulation, and, at the time of his appointment, outstanding and in circulation.

"(2) The curator shall generally have all powers and shall take all steps and do all things necessary or expedient to protect the rights and interests of the creditors and shareholders of the bank, and to conserve and ensure the proper disposition, according to law, of the assets of the bank; and for the purposes of this section, he shall have free and full access to all books, accounts, documents, and papers of the bank.

"(3) The curator shall continue to supervise the affairs of the bank until he is removed from office, or until the bank resumes business, or until a liquidator is duly appointed to wind up the business of the bank."

This places the whole of the affairs of a troubled bank in the hands of its competitors, a situation which would, to say the least of it, be considered very odd in any other connection. The winding up of the Ontario and Sovereign Banks has given the Association its first chance to exercise its powers. As the note-holders and the depositors were well protected, the public was very little concerned. It is perhaps too early to learn what the shareholders think of the proceedings, but there are those who think that the proceedings were high-handed, that the shareholders received scant consideration, and that the banks taking over the business of the Ontario and Sovereign Banks received a great deal for comparatively little or nothing, notwithstanding the opinion judiciously circulated that they had played the part of the good Samaritan.

The following editorial from the "Evening Telegram" of Toronto, in the issue of December 15, 1908, will be of interest in this connection:

"Canada, whether for good or evil, is in the grip of a banking monopoly restricted to the chartered banks already established and doing business in the country.

" 'Monopoly' is not employed here as a term of reproach, but is the only one that describes the supremacy of the financial institutions in the Bankers' Association.

"Liquidation, under the auspices of the Bankers' Association, takes care of the depositors of a wrecked bank.

"Liquidation, under the same auspices, has conspicuously failed to take care of the stockholders in a wrecked bank.

"Experience has inspired Canadians generally with the possibly mistaken notion that the occupation of stockholder in a bank formed to compete with old established institutions is financially an 'unhealthy job.'

"Consequently it must be difficult to find subscribers for stock in any new bank. Accordingly it will be all but impossible to start a new bank in this country for the next twenty years. Established banks will be supreme unless they abuse their monopoly and thus stir up opposition."

The latest move of the Association is to discontinue the practice of crediting interest quarterly to deposit accounts and revert to the practice of computing interest half-yearly. What some people think of this may be gathered from the following article from "Toronto Saturday Night:"

TORONTO, December 17, 1908.

"The Canadian Bankers' Association have agreed to discontinue the practice of crediting interest quarterly to deposit accounts. After the first of January interest-bearing accounts of depositors will be computed every half-year instead of every three months. The reason assigned for the change is that a great deal of bookkeeping and labor are involved in quarterly computations. It would appear as if this change was in the wrong direction. It was Mr. Stewart of the Sovereign Bank who hit upon the idea of crediting interest quarterly to the accounts of time depositors, and it was quickly adopted by the other banks. That the measure was a most successful one was proved by the large gains made in the deposits of the banks immediately after its adoption. While the difference between the two methods of computing was but a small item in favor of the depositor, yet it was of some value to a great many people, and it popularized the institution. The banks now, in going back to the old method, no doubt look upon the change as one of insignificance to the individual depositor, but of much moment to themselves. It would indicate to an outsider that the banks have very large surpluses of funds for which there was no employment. The difference to a bank of ordinary capital in Canada of, say, $4,000,000 to $5,000,000, and with interest-bearing deposits of $20,000,000 to $30,000,000 means the saving of a fair salary to one or two officials of the bank. Our bankers are quick to realize these picayune changes when the difference is in their favor, but the policy, especially in this particular case, is not likely to exalt them in the eyes of a shrewd and business-like people. The average yearly profits of Canadian banks are about 12 per cent., while many are much more. Even the off-year of 1908, the net earnings were well up to the best on record. The paltry sum necessary to maintain a clerical staff which could compute quarterly as against a staff that could compute semi-annual accounts seems so very absurd. When times were active and money in big demand, bringing from 6 to 12 per cent., attention was drawn to the fact in these columns that the depositor was poorly paid in getting only 3 per cent. for supplying the necessary accommodation to bankers. The Government, perhaps, was derelict at that time, as they continued to pay only 3 per cent. on the $60,000,000 of the people's money in their hands. And yet the Government in their recent loans have had to pay about 3¾ per cent. to the British investor, as against 3 per cent. for the use of the money belonging to Canadian citizens. In 1906 and 1907, the interest rate should at least have been 4 per cent. on about $400,000,000 which the banks were debtors to our own community. But such is the influence of our bankers with the Government. Neither must it be forgotten that these same banks are allowed to issue paper currency to the extent of the paid up capital, which notes cost little more than the printing."

KINDERGARTEN DEPARTMENT.

PRESIDENT'S ADDRESS, APRIL 13th, 1909.

MISS CLARA BRENTON, LONDON.

Ladies (Fellow Workers),—A most pleasurable duty is mine, on behalf of the Officers of the Kindergarten Department, I ask you to accept a very warm welcome. We wish sincerely that the time we shall spend together shall attain so high a standard of *genuine* helpfulness that we shall return to our work refreshed (which is not always so after a three days' convention) and with a deeper purpose in our hearts to interpret more truly the principles upon which the Kindergarten is founded. To that end (in addition to the good things prepared for us by outside friends) we have endeavored in the preparation of our programme, to give a prominent place to at least a few vital question in our school work; truly do we believe that the path of progress for every Kindergartner will be in reality a path filled with much light if she will but *earnestly seek* and *strive after* the solutions of problems which are of deepest concern.

Not many of us realize that we are meeting together at this forty-eighth annual meeting of the Ontario Educational Association, so near the celebration of a golden anniversary. Not so long can our department claim existence, indeed it is but thirty-seven years since the first real Kindergarten was established in America by Madam Kraus Boelte, the soil before this time undergoing careful preparation by that great apostle of Kindergarten in America, Miss Elizabeth Peabody. It were futile for me this morning (nor would I presume to attempt it) to trace the movement of this great and noble work in the educational life of our country.

Marvellous has been the growth of the Kindergarten System of Education. Why marvellous? Had not God prepared the soil? Would *He* not direct the work? Was it not He who entrusted that message of eternal truth to one whom He found ready to receive, one who was willing to give his life for the desemination of that truth which would mean growth, which would help man to be truly a co-worker with God? All honor to Froebel who lived, so near to the voice of God, so close to the heart of humanity, that he hesitated not to consecrate his all, that the words he heard of eternal truth, might become a living reality in the education of man. he knew that the child was the centre in that Kingdom of New Life. It was to him a high and glorious privilege to serve. Might not we also know in some measure the privilege it is to thus serve in so great a cause, so noble a work.

We believe that in the establishment of this department it was but an evidence of a deeply felt need of a few Kindergartners here in Ontario who with a zeal and an enthusiasm, realized the cause so dear to their hearts, could not but be greatly helped by concentrated thought and effort. What have we been doing in the intervening years. Have we made our department "worth while?" Have we realized it might be a centre of great power? We know the past, what of the future? What are some of the problems in our work in Ontario? What do we need? Where shall we secure the best guidance, the best help? Could not this department be indispensible in its helpfulness in the Kindergarten life of Ontario?

Can a charge of apathy be laid against us? Or worse, have some of us been found sleeping while claiming to have in our hands *a great commission*? Perhaps we have deluded ourselves in thinking our slight efforts were our best, when perhaps more willingness to exercise more vigorously, would have given a better circulation for helpful thoughts, and these in turn would have found utterance in deeds. We have a responsibility laid upon us, we were happy when the Education Department certified that we might go forth as teachers, but what shall we say of ourselves as commissioners? Far be it from me to undervalue the work which the certificate represents, but in what condition at this present time do we find our equipment? If we have been in the past apathetic, the present invites our awakening. We are capable of nobler effort. Froebel's life beautifully illustrates the missionary spirit which should dominate our lives. The best that many of us have done has been to perhaps mechanically do routine work, we have given rather grudgingly ought else, not much sacrifice in our lives. If education means anything, it involves earnest action. Could we say with Lessing, "If truth were a bird which I held in my hand, I would let it fly away, that I might have the pleasure and the benefit of catching it again."

I believe with profoundest conviction that our effectiveness in our work will be determined not merely by the amount of energy we put in it, but *our attitude of mind* toward it. If with an openness of mind we are undefatigable seekers after truth there must follow an appreciable *quality of work.*

Perhaps we may or may not be familiar with methods of investigation pursued in modern science, but can we not honestly search for truth and the detection of error? If we are intensely in earnest in our study, we know that such an exhiliration, will accompany the work, that the obstacles we meet (and we doubt not but that they will ever appear) shall be converted into stepping stones in the attainment of this higher plane of action.

If Froebel could now see the realization thus far of the principles he enunciated as of foundation importance in education, after fifty-years trial, what would he remedy? Am I presuming too much when I make this statement that I think possibly his first correction might be, the correction of misinterpretations put upon his own words, and that perhaps by some very sincere exponents of the Kindergarten. Rev. T. J. Thompson, in that valuable paper he gave us at our last convention on "The Contribution of the Kindergarten to Citizenship," remarked, that if the philosophy on which Froebel was nourished, and which is developed in all his works is so subtle, with what preparation are we interpreting it?"

Every one will admit that it is no reflection on the founder of the Kindergarten to assert that even in this short space of time there are some defects apparent to the careful student. Defects caused no doubt because of misinterpretation, or lack of comprehension. Was it not with prophetic understanding Froebel felt that one hundred years might pass, ere the world might see the fulfillment of his cherished plan of education. Surely with great wisdom he penetrated the future and knew there would be much groping, even blundering, a laying hold of the letter, a firm grasping of it because of its *seeming* security. The late Col. Francis Parker once asked a prominent Kindergartener what she proposed to do, and she answered, "What Froebel did, he knew."

Defects which have crept in have been recognized and largely remedied by many loyal-hearted workers, they have delved deep, and are rewarded by knowing that the Kindergarten to-day is on a firmer basis than ever before, it has become as Mr. Scott showed conclusively in his paper last year an integral part of the public school system. It is ours now, to bring all the real insight we can into our work and know very clearly in what this relationship consists.

Are we willing to put in *first* place that which is of highest value? Just in passing, let us ask ourselves as teachers in this particular stage of child life, what have we been putting first? An editorial I read a short time ago (written by an editor of world-wide reputation) referred to organization life and the fatal wheel-clogging which so often occurs when one lays too great emphasis upon one's own opinions and too little regard for the opinion of others. He said "It is all well enough for us to be positively in favor of our own opinions, but it might be a lubricant to the wheels of progress if we were now and then positively in favor of other folks' opinions.'' This but illustrates perhaps very inadequately the reason why some of us cannot be a part in progressive work and thought. We feel we have arrived at such reasonable conclusions that nothing is to be gained, in fact only a waste of energy if we should concern ourselves with any other point of view. We have the ''final opinion.''

Can we prove to the educational world that we have reasoned well this question, we *know* whereof we speak, or must some of us confess we have unduly emphasized some aspects which have brought forth severe criticism. Patterson Du Bois says "It is unnecessary to label ourselves, Hebartian, Hegelian, or Frobelian in order to be measurably wise with children. But we must have some conscious principles to tie to, some visible foci for our thinking, some key-notes to tune by.'' May we not say *openness to truth, the desire to know the best that has been thought and done, freedom from bias* are the invariable marks of a largeness of character which distinguishes the truly progressive teacher.

One educationist said ''Some teachers early in their career show unmistakable evidence of arrested mental and professional development. Others show themselves pedantic or conceited with a contracted intellectual horizon.'' Some might say, he could not possibly include Kindergartners in that category, the atmosphere of the Kindergarten is a prevention of any such evidence of disease. But dare we so hide, and appropriate such protection under the system which we know ranks with the best in the world? What shall render us immune to these distressing conditions but the healthy condition of our own mental and spiritual life, we are deeply thankful for the refreshing and invigorating atmosphere which the Kindergarten work and study offer, but we must breathe deeply of its pure air, if we are to know its conserving power.

One writer has said "Since Froebel's glorious day a great abundance of nutrition for the minds of children has come to us. Scientists in all fields have forced the secrets of nature; have interpreted man's life, his language, his manner, and process of development. We have these products which Froebel did not have. All the knowledge that has been discovered, or that ever will be discovered, is for the child, and for the people, and for the higher life. Science has revolutionized much since the beginning of the century. These searchers for truth believe that all that has been discovered in any realm of science is but touching "the hem of the garment. They are delving, experimenting, investigating, and when the truth is discovered it is made free as the air to all the world. A discovery that has not the requisite proof back of it, or which cannot be fully demonstrated is discarded. This is not according to law written or unwritten; it is simply a common sense mode of procedure that is held by all real scientists."

A comparison of the present scientific method with that of the past discloses a marked difference of view-point. The past emphasized not only a fixedity of purpose, but a fixedity of method. We know that as a thinker, as a careful student of the times in which he lived, Froebel felt this bondage, but he also felt the unrest as evidenced by a reaching forth toward freedom. After a constant and earnest contemplation of the *needs* (which were to him a source of great inspiration) he revealed a pathway no longer dark a d uncertain, but lighted by the light of eternal truth.

If we would be free from the guilt of following mere form, the rigidity of which results in following the "letter which killeth," rather than the spirit which giveth life, let us look well at our way of movement. The following words were spoken by Froebel: "For the living thought, the eternal divine principle as such demands and requires free self-activity and self-determination on the part of man, the being created for freedom in the image of God."

Could there be a much more painful experience for an educator such as Froebel was, than that of having his message misinterpreted, and with this, the additional regret of seeing his followers so happy and contented *in following*, that they neglect *to think out for themselves*, the ever pressing problems of education. Froebel showed the *way* for further advance; he hoped that the new light he gave would be used more and more to reveal the boundless vista of eternal truths.

Those of us who can recall our study of Froebel as written by Quick in his "Educational Reformers," may remember these words: "For myself, I must admit that I very imperfectly understand Froebel. I am convinced that he has pointed out the right road for our advance in education, but he was perhaps right in saying "Centuries may yet pass before my view of the human creature as manifested in the child, and of the educational treatment it requires are universally received.' " And he adds, "For the full attainment of Froebel's standpoint perhaps a few additional centuries may be necessary."

Does not this inspire us to earnestly work that we may help to bring that far off day a little nearer to the present. For efficient service we know we must have the scientific mind, the open mind, and that mind is one that without prejudging gets all the facts and draws the evident conclusions, be they what they may. The most efficient teacher will admit the truth of what she observes, will not say, "It is not so" because she wishes that it were not so. To open one's mind afresh to the truth which God has written everywhere, to rid one's self of all prejudice, to *want* to know all that can be known, rather than assert, all that this means, I know, must bring "a tremendous blessing."

Again, to quote Col. Parker, "The great-souled Froebel began a mighty work. He saw visions of a regenerated humanity. And he took one step, which so far we have limited to little children. That step means a new spirit in education, a new life."

We perhaps but very imperfectly appreciate all that has been given us in the last few years. What impulse Froebel gave to the researches that resulted in many of these discoveries no one can say, but what shall be our attitude to all the wealth of discovery which earnest men and women have made in scientific pedagogy? In whatever field, all discovery of truth in its grand and final answer discloses the one Divine purpose, that man's destiny is that of an eternal being, and as such he can only be truly satisfied with eternal realities.

How to work in harmony with that purpose, how, as we move toward that Ideal, *to prevent as far as possible any needless waste of energy* is a problem of supreme importance to the educator.

Sternberg, the distinguished musician, in an article on "Musical Expression," says, "I often tell my pupils, play any way you mean to play, only play *some* way, and be sure that is the way you mean to play. Now, frequently they stop right then and there, and their look of perplexity shows plainly that they caught themselves at not having any thought at all in their mind. Whenever I succeed in making them thus catch themselves at being so thoughtless, I feel that I have gained much. The rest is usually easy." That admonition may not be so inapplicable to us as it might at first appear. That *a good thinking mind* is an invaluable asset to every teacher is something we need to realize by *personal experience*. Let us believe that God has furnished inexhaustible means for the help of the human race, that these riches are for the needs of His great human family, and that if we would know the privilege of service, if we would follow *wisely* the way of the founder of the Kindergarten, we would respond joyously, yet reverently, to the Divine Call, "*Feed* my Lambs," counting not any cost too great, if with highest motive and deepest insight we might serve.

THE EDUCATIONAL VALUE OF STORIES.

LILLIAN B. HARDING, TORONTO.

Every disciple of the Kindergarten believes the story hour to be the golden gateway through which one may enter the heart of the child, making life for him better, purer, nobler, stronger, and more helpful. Nor can we estimate the influence behind the story, of that personality which makes for continual inspiration, ennobling graciousness, summer-like brightness and joy, which is after all but the reflex of the child life with whom we live. Stories are the child's first introduction into that grand world of the ideal in character and life, and the first and highest use of stories is to enable the child to form a pure and noble concept of what man may be and do. A child who is taught only certain moral precepts, and who has no representation put before him of these truths expressed in characters and actions rising above the common level, will lack the courage, the energy, the aspiration, and still more the humility necessary to raise his own character and life to the highest standard. Our children have at once to begin to live in a world in which they are strangers. The lessons of experience are only learnt in the course of years, hence our story must stand as an illustrator of the laws governing life. We may teach the child that certain causes produce certain effects but the lesson is soon forgotten, if the law, however, is shown in action in a story the consequence remains fixed in the mind. and again and again through life serves as a guide under similar circumstances. Stories are the mirror in which the child sees pictured a world beyond his own. He is no longer the centre of all things, but rather stands in a brotherly relationship to children he has never seen or known but who enjoy as he enjoys, who have the same difficulties and temptations to overcome. Through the development of sympathy or the imagination of the heart he can conceive what others suffer or enjoy; his perception is quickened in regard to others and he can enter into joys and sorrows beyond the range of his actual experience. The real power of example which lies in the special inspiration it gives to a particular principle of conduct is forcibly impressed through the medium of the story if it stands for true development and training and not for undue stimulation of the imagination. If our stories are bright, delicate, fanciful, sweet, tender and true to a principle of life we give the child his rightful inheritance and help him enjoy the only kind of freedom worth while—the living out his real self-hood—the being what he really is, with space enough under the wide arch of heaven, for the unfettered exercise of every faculty of his being for immortal growth.

This year under the auspices of the Toronto Teachers' Association we enjoyed a series of five lectures on "The Value of Stories in Educational Work," and "The Art of Story-telling," by Miss Martha Sherwood, of Chicago. Miss Sherwood is regarded as the best authority on this special subject. She has had long practical experience in schools being primary supervisor of the schools of Saginaw, Michigan. About three years ago she decided to devote herself entirely to lecturing, after taking a course in Ethnology at Chicago University. A *resumè* of these lectures is the purpose of this paper. Miss Sherwood in endeavoring to show the place of the story in elementary education started out by saying there was a great deal of literary starvation among the young people of to-day for, as yet, they have not formed the habit of reading. If properly trained she maintained they would appreciate solid, sensible, artistic material and so cultivate a taste for good literature. Ethical truths should be presented to children in concrete form. Old stories were conceded to be the best. They are democratic; we find no class distinction, beggar and prince converse. The idealizing tendency in the old story is prominent. It is simple and concrete on the surface and contains the ideals, desires, hopes, and fears of the race when it was young. Essential points to be observed in the selection of a good story,—

(*a*) It must be ethical at the core.

(*b*) It must not portray *evil* that is *new* to the child; only such as belongs to his own particular world should be presented.

(*c*) Omit points where success turns on trickery or cunning.

(*d*) Exclude all descriptions exciting fear or horror.

(*e*) Exclude introducing step-mothers and sisters with the one exception "Cinderella."

Our stories may consist of movement and activity with description or free-imagination, or out-door life or simple rhyme. Withal we must be sure the story is literary, that it is pure and simple in form. A good Fairy Tale is plain concrete philosophy, not subtle in suggestion. In the fairy story, good must come to the doer of good. Wisdom is necessary in making a selection as a large number of our Fairy Tales are unsuitable and bewildering. Hans Andersen's, while being admirable, are not based on tradition and contain a philosophy that baffles the child. The "Snow-man" while being beautiful in form is beyond the child's comprehension, "The Ugly Duckling" and "The Fir Tree," however, are most suitable. We must omit again, such a story as Grimm's "Star Dollars," which is absurd,—success must not come out of proportion to the deed—exclude also, such stories as, "Jack the Giant Killer,"—children must not have a fear of animals. Our Folk tales may be divided into four classes—(*a*) Hero Stories, (*b*) Nursery tales, (*c*) Drolls such as, Epaminondas, a tale of funny misadventure, (*d*) Cumulative, such as "House that Jack Built."

A strong plea was made for animal stories. Children love animals and are interested in them. They have them for pets and like to personify them. Animal stories are good also, because of the human characteristics possessed by them, for example, the activity of the bee. Animal literature may be found in the old folk-tales and in the myths. Fables are the best pure animal stories. "The Kite and the Pigeons," regret expressed; "The Earthern and the Brazen Pot,"—keep away from the mighty; "The Lion and the Mouse,"—consolation. Hindoo Tales, such as "The Talkative Tortoise," "The Camel and the Jackal," "The Brahmin, the Lion and the Jackal,"—are the best pure animal story; the last, the most excellent.

Ancient animal stories, such as "The Red-headed Woodpecker, "Henney, Penny," "Three Pigs," and Grimm's "Queen Bee," are all good. The Indian Tales—Frank Cushing's "Zuni Folk Tales" are educational. Collections made for ethnological and scientific purposes contain the material most suitable for adaptation.

Modern animal stories are—

(*a*) Scientific.

(*b*) Imaginative.

Scientific stories sub-divide into

(*a*) Nature Stories,—our modern nature story was typified as "emotional nonsense," for example, "The Dandelion Seed."

(*b*) Scientific Nature literature, such as, Long, and Burroughs write, is easily adapted to the age of the child.

Ernest Thompson Seton's stories were recommended as suitable for children in any grade, treating as he does the psychology of animals from an emotional standpoint. The stories of Uncle Remus are good. "How The Bear Got its Stumpy Tail," for instance.

Clara D. Pierson's—*Farmyard people; Meadow people;* and *Pond people*, are samples of good imaginative literature. In our Nature story, we have from the Norse two good tales showing the investigation of nature, the familiar story of "Boots" and "The Little Boy and the North Wind," an excellent tale for artistic form, with the idea of recompense admirably brought out. Our Kindergarten *repertoire* should consist of Nursery rhymes, Cumulative tales, Drolls, Fairy stories, Fables, Animal stories, Nature Myths and Old Testament stories.

Note.—Miss Harding, by request, told two stories.

THE INFLUENCE OF GOOD PICTURES.

MISS IDA HILLMAN, CENTRAL SCHOOL, CHATHAM.

This subject is a very broad one and as it has only its beginning in the Kindergarten, a general outlook will probably be of interest to you.

I do not know to just what extent we are indebted to the Kindergarten for the foundation of our present educational principles and ideals but I am very sure that the Kindergarten has revealed to us the fact that one of the most essential conditions of education, and its only true test, is happiness.

Froebel says—"It is my firm conviction that whatever gives the child pure and persistent pleasure is very closely connected with some deep truth in his nature and has in it a germ of the highest possibilities."

I think we all agree that pictures give the child pure and persistent pleasure—and the deep truth in his nature of which the pleasure is the expression is his passion to know himself in all his relations—to find the all pervading connection between the things of sense and the things of thought and to express this relationship. Not only this—but the child's love of pictures is based also on his natural love of the beautiful. What the poet says is true—"a thing of beauty is a joy forever." And there never was an age in which the love of the beautiful in nature and art was more fully, recognized as a factor in the development of all the finer qualities of character—than it is to-day. For as God is the source of all beauty, so an understanding, a love, and an appreciation of the beautiful cannot but help us to understand, love and appreciate the Source.

These, then, are the purposes of our Art Course and especially of the recent introduction of the study of pictures into that course.

The history of all Art teaches us that the study of pictures which I understand to be, the study of the masterpieces of art either from original or good copy,—is the condition under which all art as been developed. As it is in nature, so it is in art, one very necessary condition to all development is a congenial atmosphere. No matter how great the genius or how extraordinary the talent, the best models are necessary in orde to discover, to stimulate, to direct, and develop the natural gift.

The great masters of the Renascence, literally lived and moved and had their being in an atmosphere of art. The Greek models which surrounded them everywhere became the ideals whom they worshipped and then their rivals with whom they competed. Without these conditions there had been no Renascence in Art, no Michel Angelo, no Raphael.

Not only this—but this atmosphere called forth in the whole people an intense and passionate love of the beautiful. The completion of a masterpiece was an event which concerned the whole nation. When the great Florentine Cimabue completed his Madonna, the shops were closed, workmen dropped their tools, the farmer left the field and the soldier the camp and all assembled in the streets. The artist was borne in triumph to the church where the multitude remained for hours feasting their eyes on the loveliness of the Madonna.

In our day it seems to be the soldier who is able to call forth admiration, but in those days it was the artist that the deepest and most passionate enthusiasm of the people.

But we must not forget that although the cathedral and the palace were centres of art and culture—the great mass of the people spent their lives in the midst of filth and ugliness; even the homes of the freemen were of sun-baked brick with roof of straw and floor of mud and walls bare and black.

It has been left to this age, of the education of the masses—to diffuse the beautiful among them as a means of culture. When that apostle of the beautiful, John Ruskin, began to search out the cause of the ugliness of the poor man's home in England, he went to the great manufacturing centres to study the men who worked in design. Finding them without beautiful models, he took the marbles of Greece and the paintings of Italy from his own home and distributed them among them that they might make the knife and fork to represent lines of beauty and the paper on the walls, soft tints and lovely lines. From that time until now much has been done to carry the work of man's hand from the point of utility up to the point which we call beautiful; and now the time has come for the cultivation of the love of the beautiful for its own sake, for the creating in our schools and homes of an atmosphere conducive to the development of art and artistic taste.

Although the original masterpieces of art are beyond our reach in this new country, the art of reproduction has become so perfect that we are able to obtain, at very moderate prices, copies which I think, are true enough to serve our purpose. Graves & Co., Engravers, Pall Mall, London, Eng., carry a line of new face steel-engravings, large size, hundreds of subjects suitable for schools, Regular-guinea pictures, may be obtained for schools, half price, free of duty. From the Art for Schools, Association Passmore Settlement, Tavistock Place, London, W.C., may be obtained almost any picture in steel, carbon, etchings, etc., at greatly reduced prices. The Elson Co., Boston, carry a fine line of carbons.

The object, then, of introducing these into the school is to make the pupils familiar with the masterpieces in order to bring about an intelligent appreciation of them. And this appreciation must come through the study of the picture itself. Silent influence is good but it is not strong enough to enable the child to distinguish between good and bad art.

Every work of art has its message and the child must be taught to read and interpret this message aright. Of course the interpretation will depend on the mental growth of the child. The Kindergartener will read the story in the light of his own little world; the larger child will get a broader view, while upon maturer minds may dawn something of the artist's power, his mastery of form and color.

First then let us endeavour to find out what the picture tells the child. The picture selected should be within the child's experience. For young children I would choose those that are illustrative in character, that carry their message broadly on the surface. Children respond very quickly to expressions of mother love and home relations, of personality in animals, of play, of helping, of joy. For instance, take Millet's First Step. It will not take the child long to tell you that the mother has brought the little child out into the garden where the father is hard at work. But when he sees the mother and child coming he drops his tools and stooping down, coaxes the child to take the first step. See how eagerly he stretches out his arms, and how anxious the mother is. Why? Because they love the little child. Thus you see the child has caught the artist's message, the love of the French peasant for his children.

The child is naturally a lover of animals and such pictures as Landseer's, Rosa Bonheur's, develop a kindness and sympathy for dumb creatures and foster a love of all forms of life. The interest thus awakened is sure to be maintained throughout the long range of subjects—groups, ideals, figures in landscape, and lastly, the sympathetic expression of pure landscape.

This first step, the development of the artist's message should be followed by an investigation into the picture itself—always adapting our study to the age of the pupil. The second step should develop a recognition of the composition of the picture as shown in the way the artist tells his message. Here we should proceed slowly. The object is not to make artists or art critics any more than the study of literature is intend to produce poets—but simply to awaken a genuine, intelligent appreciation of masterpieces. The principle vital to the character of the picture, will, if simply expressed, flash new light upon the whole significance of the picture. For example, I doubt if any of us love the Sistine Madonna the better for knowing that it is arranged in the form of a diamond, but to notice the lineal composition effected by the welding of the mother and child into a single figure, gives a new insight into their oneness of purpose. One can see too how much alike mother and child are—both speak of divine love and pity. More than this the observation will unconsciously set up this group as an artistic standard beside which, all awkwardly and artificially arranged compositions prove themselves inferior.

In making a selection of pictures I would do so with the object of illustrating the fact that there are different recognized ideals of beauty in art. A copy of The Dying Gladiator illustrates the Greek ideal—balanced harmony of mind and body. In Michel Angelo's Pieta may be seen the development of intellectual and emotional beauty, typical of the Renaissance. Modern Art presents still another conception of beauty. Such works as Isreals, Millet's, Bretons', teach us that there is a beauty apart from that of face, form or intellect. Millet himself says "Beauty does not lie in the face. It is found in the harmony between man and his industry. The beautiful is that which is in keeping."

In looking at The Gleaners, for instance, we see no comliness in the square, heavy, awkward forms, of the peasants in the fore-ground; and yet they are just the kind of figures one would find in a wheat field on a hot summer's day. They belong to the landscape. They have lived and worked in the fields all their lives and their bodies have grown muscular with years of bending, lifting and carrying and we cannot fail to see in Millet's Gleaners the truth of character—the harmony between man and his industry.

Perhaps, you may say that although they are true to nature, the awkward, stupid peasant is not an interesting person and therefore not a fit subject of art. I think the really stupid people are those whose pretty faces are sometimes found on handkerchief boxes and plates and even on the walls of drawing rooms. Their vulgarity lies in their pretentiousness and their stupidity in their weakness. Strength in any form is more beautiful than shallow grace.

I think, too, that such a picture as The Gleaners awaken a sympathy for those in the humble walks of life and is as truly a poem as the Cotter's Saturday Night, or Gray's Elegy.

These pictures, too, serve to illustrate the fundamental principles of drawing in our practical teaching. In the well known masterpieces there are very fine examples of harmony, unity, variety, balance.

Picture study, too, correlates itself naturally with other subjects of the curriculum. For primary grades they afford excellent opportunity for language lessons, and in the higher grades for Composition. They serve, too, for illustration in History, Geography and Literature. In connection with History the lives of the leading artists should be studied. Many of them make very excellent character studies. I know of no example in history that better illustrate the fact that man's fortune is according to his pains, than the life of Michel Angelo.

The study of the life of the artist aids very greatly, too, in the interpretation of the picture, and vice versa for Ruskin says that, "The highest thing that art can do is to set before you the true image of the presence of a noble human being." So after all, it is the personality of the artist as shown in his picture that influences us.

Perhaps some of you, may think that although this picture study is valuable it places too great demand on the teacher's time. I have found much of the preparation comes in one's general reading. Our current literature is full of art criticisms and our art stores abound in good illustrations and fairly good pictures. In school, this work should be taken in connection with our ordinary programme of studies to which it should lend variety, breadth, and enjoyment.

And after all our business is not to teach subjects, but to train the mind, to equip the pupil to answer the demands of the age, to open the doors to the greatest advantages and privileges that life offers. Our narrow course and especially our narrow way of presenting it will no more suffice to-day, than a thousand dollar capital does in the carrying on of a great business.

The world is changed and life to-day means something broader, richer and more abundant than it did a few years ago and we too must be broader, more capable, more resourceful, more tasteful to meet it.

In the education of the future, the influence of art is going to play a very important part and although the study of pictures will not produce a race of artists, any more than the study of literature has produced universal authorship; but it is bound to open a new world of beauty and develop a greater capacity to enjoy life, and I think that a distribution of the beautiful into daily life is an incitement towards beautiful thoughts and beautiful actions and a barrier against ugliness of mind and deformity of morals.

TRAINING DEPARTMENT.

HISTORY IN THE PUBLIC SCHOOLS.

S. J. Radcliff.

History seems to have a place in the Public School curriculum if we judge by the opinion of educational writers of to-day. It was not held in great esteem by a generation who believed in the disciplinary values of certain studies. In my University course I suspected that it was not severe enough mental exercise and I always felt apologetic before the complacent smirk on my friends in mathematics, classics and philosophy. This is not the attitude at present to the subject. It is felt that it requires no weak intelligence to grasp cardinal principles amid multiplicity of detail to see the relationship of cause and effect, and to feel the proportionate importance of events. It is the subject that will teach us to love our land "With love far-brought from out the storied Past," but in a refined and exalted patriotism that eschews fire crackers, boastful speeches, jingoism, and accounts of events unfair to the enemy and untrue to facts.

In an age when the aim of education is to prepare and discipline a youth to participate in the existing social institutions around him history cannot be left out of the curriculum. He must know his civil rights and duties and he should learn to adapt the experiences of others to his conditions in life and project plans for the future based on the wisdom gained from consideration of the sources of the success of our antecedents.

History has had a very uncertain life if we read the history of History in School Curricula. In the age that emphasized discipline it was dropped, but in the ages when men valued an education to train the youth for conquest of nature's forces and for adaptation to the political, religious, charitable, educational, mercantile or mechanical institutions around him, History was always an important factor in the course of studies. It was also a factor when the world tried to expand its life into a fulness in imitation of the culture of Greek and Roman.

In Ontario it has had a checkered course. This subject which by its very nature as a record of man's achievement should be most captivating, was regarded as one of the most distasteful to the pupil in the whole course of study. There were different reasons for this abhorrence. The examination for entrance to the High Schools and the promotion examinations compelled the teacher to give only the skeletons of the work; the vast amount of information that was prescribed compelled the teacher to condense it till it was within the pupil's power to read and memorize and the text-books on the subject in an effort to be concise dic not give any inspiration to the pupil.

A great demand was placed upon the teacher's ability to illuminate the dull statements of clauses in treaties and results o wars and government acts. She had not only to support interes in these from her own general reading but she must show tha the subject had some bearing on the conditions of our own times and she must relieve the dead level of chronology by bringin out the proportion of momentous events and mere episodes. saw a class preparing a paragraph on Royal Government in th Canadian History. They were reading in a listless way th division of authority among Bishop, Intendant, and Governor The Inspector, with whom I was visiting, took the class, an began in a very rational plan to prepare them for the subject b relating their knowledge of our municipal and provincial government to the subject of their study. But they had no suc knowledge. They had never heard of a reeve of a township counci and did not know by what authority men were drawing grave on the road in front of the school. Could anything be more hopeless than to try to give these people a notion of Royal Government, Was any information more useless? How many of th young women who have been teaching in our schools have th knowledge, the adaptability after a day's work to prepare a serie of lessons that would make this subject intelligible and useful How many know where to go to find the information that the require and how many could find the books in the libraries o the neighbourhood?

Some of the boys in the schools found pleasure in trespassin into forbidden fields. Teachers have complained that these boy were reading Henty and Ballantyne and neglecting the text-book Yet these boys sometimes surprised us with information that w did not suspect, and when questioned about where they had found out these things, blushingly admitted that they had obtained the knowledge from books that were hidden from parent and teacher. Some wise teacher suggested that we follow the lead of the boys, and biography was placed on the course. It was found that the subject had great human interest, that it afforded an admirable opportunity for moral lessons, and that many of the great events of history could be taught by this means. History need not be deferred till the pupils had facility in reading, and the oral biography might serve to whet the historical appetite in books the teacher might suggest along the same line for those who could read.

It was further suggested that History should not be made an examination subject in order that the teacher might have a freer hand in ordering her work. This arrangement has produced two results. In some schools it is taught with remarkable success, and in others it is not taught at all. Where the teacher is left free to choose her own course the result is often very satisfactory. An inspector should inquire what is the teacher's plan, and see what progress is made in this direction, and not interfere further. A uniform history paper for a county will likely be attended with all the evils of the Entrance examination. In other cases I fear that too often the subject is utterly neglected. The teacher will prepare the class in the other subjects for the entrance examination; but history requires extensive reading, planning of campaign, selection of material, relating it to our present circumstances, reviewing it every year before teaching it, and the energy to adapt the language to the comprehension of a class. But what a gain in vividness, in clearing up misconceptions, in the sympathetic accent, gesture or glance, in making the mountain peaks tower above the foot-hills?

The teacher may do her very best and yet be subjected to vexatious criticism. It is easy to ask questions of a pupil prepared in this manner and get an impression of lamentable ignorance. The important people in the pages of history are legion, the events are equally numerous, and the chronology and dates utterly appalling. Let us remember that these pupils have lived only fourteen years, and yet we ask them to straighten out the centuries with all the vividness of the three primary colors. Are we not making the mediaeval mistake of regarding the child's mind as an epitome of the adult mind? Besides what's the use? We have all seen people do useful work, get three meals a day and die comfortably in bed who could not tell us the century of the Babylonian Captivity. Sufficient for them was the story of the Fiery Furnace and Daniel in the Den of Lions.

My plea is for great freedom for the teacher in mapping out her course of study. If she is teaching the subject with enthusiasm she cannot go far astray. She will select what she feels is of highest value and will instil into her pupils a desire for historical reading. If she loves her subject she will encourage them to read beyond the text-book. What illumination is thrown on the history text of the French Revolution by Dickens' *Tale of Two Cities;* of chivalry and the Crusades by *Ivanhoe* and *The Talisman;* on the courtly life, patriotism, adventure, literature and sprightly wit of Elizabethan times by *Kenilworth* and *Westward Ho!*

The teacher should be encouraged with Public School classes to pass lightly over the dull periods in English and Canadian History, to rise above the dead level of chronology by bestowing all her spirit on the great men and great movements. How profitless is a lesson on the French Governors between Champlain and Frontenac? Let these two gallant Frenchmen tower in all their height even if the continuity is disturbed. Let the dreary wastes of the Wars of the Roses and various acts of parliaments and kings that have no bearing on our present life pass unnoticed. But let the story of our liberties come in succession so that we will appreciate the benefits of our jury system, of the Habeas Corpus Act and the Reform Bill. These should never be taught without a contrast between the past conditions and the advantages of our present freedom. The teaching of civics should be encouraged this way and can be taught historically. The student might omit the story of religious persecutions so that it would not displace some notion of our municipal, political, and educational systems. The duties of our Dominion and Provincial Parliaments, the nature of our Cabinets, the method of general elections can be made of vital interest without involving any controversial questions. If history does not prepare for citizenship or stimulate noble or patriotic impulses it is the most worthless subject on the course. If it does these things, it should satisfy those who claim the development of character to be our aim as well as the more modern apostles of social realism.

There are two methods that may be adopted. There is the text-book that puts all events under the King's Reign. My first history was learned from Collier and this book had some great advantages. Besides its vivid and picturesque language, it gave me a frame-work for relating all continental movements in my subsequent reading, and Kings and dynasties were marked indelibly on my memory. But I felt that everything stopped when the king died, and that court intrigues and genealogical charts were more important than the life of the people and the evolution of great principles.

The committee appointed by the Imperial Parliament to report on educational work advises the use of the concentric system. It would take in the last three years of the Public School some great movements, review these each year, holding fast to the vital principle in each and widen the circle of knowledge at each review. The old knowledge would be related to the new, the repetition would impress the facts on the memory, the relation of cause and effect would be felt, and the treatment could pass from the pictorial stage of the first treatment, to the information and reflective stages of older pupils. It has all the advantages of the encyclopedic system of old Comenius, but with the same condition that the unifying principle must never be lost sight off. Some titles occur to me that might be used as themes for many lessons, viz., The Races that built up the British people; the age of chivalry, the Renaissance. The British Parliament, The Exploration Period, and the Development of Responsible Government in Canada. You will say that on inexperienced teachers we are making great demands, but if the teacher has some ideals difficult to attain before her she will not be satisfied with assigning paragraphs, asking questions with open book, and leaving the subject as a dull lesson that availeth nothing.

In this scheme there is also some attempt made to have these great circles follow in chronological order and they can be shown to interlace and grow out of one another. The period of Geographical Discovery can be related to the great intellectual moyement of the Renaissance. With the Third Book classes it may be enough to have vivid pictures of the voyages of Columbus, Magellan, the Cabots and Cartier. In the succeeding year there may be marked the growth of England, France, Spain and Portugal into great maritime nations, and the beginning of a career for

Canada, the United States, for Mexico, and the South American republics. In the next year besides a review of the preceding work the theme may be enlarged till the student sees the fall of Venice as a sea-power before the invasion of the Turks, the compass and the globe from the learning of the Moors, the commercial spirit of the Portuguese that doubled the Cape of Good Hope and traded in the Spice Islands, the stories of Prester John that would make the western nations rich beyond the dreams of avarice, and in the quickening throb of intellectual life that questioned authority in religion, in government, in education and in the trade guilds. The discovery of a new world was only a symbol that we were merely on the fringe of knowledge; that the investigator and the poet as well as the mariner might catch "Gleams of that untravelled world, whose margin fades for ever and for ever as we move," so that every heroic spirit was impelled "to sail beyond the sunset and the baths of all the western stars" in more than a metaphorical sense. It will stimulate the imagination of the pupil to foresee great nations with rich mine, fertile plain rivalling the old monarchies, and the hope of a North West passage that would bring close to Europe the rich merchandise of the Orient.

Any period may be treated in similar fashion. History may become a world of romance, where imagination is kindled, where the whole world becomes kin, where a vital principle binds together seemingly irrelevant facts, where man's achievement over danger and discouragement gives the young student a faith in himself and in the human race.

WHY WE TEACH ART IN THE PUBLIC SCHOOLS.

Julien R. Seavey, Art Instructor, Normal School, Hamilton.

It has been asked,—Why do we teach Art in the Public Schools?

Is it advisable to teach school children to model, draw, paint, design and decorate, from the time they begin to learn their A B C's till they complete their school course?

Shall we confine them to the 3 R'S or shall we make it so broad that instead of the three requisites of the old fashioned education we hereafter make it Reading, Writing, Arithmetic and Resource? Shall we add Resource?

Pressure of population, the rapid growth of our cities and towns, the streams of immigration, the specialization of industry, have produced political economic and social problems that shake society. It has been stated that half the immigrants that cross the Atlantic come to receive free education, modern education for their children. Our parents and even our pupil's parents, view many of the studies and subjects taught in modern schools as "fads and frills" and consider that certain children if not all the school, were wasting their time in some of the branches of their school course.

These critics of the modern methods complain that the public schools are not what they used to be and that what they were brought up to consider the proper training of the young is woefully neglected, and too much time given up to subjects of which they fail to see the use.

It is difficult to make the fathers and mothers of to-day realize what is being done for the fathers and mothers of to-morrow. It is now claimed that the old style of teaching was based on an ignorant theory of the human brain.

The old idea was that an stern solid drill in a few subjects developed mental power that could be used in all subjects.

Teachers assumed that the mind was a group of general powers and faculties, such as *attention*, *observation*, *comparison*, *memory*, *logic* and *language;* that an intensive study along the line of any mind faculty would develop that faculty as a whole for all purposes.

This theory of the mind is challenged and stoutly disputed by the foremost educational psychologists of to-day.

It is now held by the most prominent authorities who inspire most of the teaching methods of modern education, that the brain, instead of being a collection of a few general faculties is divided into countless specializations:—that mental power developed through one mental process cannot be transferred to another process, and this discovery overturns the foundation on which education has been based for centuries.

Together with the modern demand for technical and manual training it accounts for many of the great changes made in the course of study in our modern schools. In mediæval schools Latin was the language in which all the learning of that age was locked up, and the argument has always been that an exhaustive study of Latin gave great mental power, and that was the controlling idea behind intensive study.

The *new* idea is that a broad curriculum embracing in addition to the 3 R's, *Manual Training*, *Art*, *Science* and *Nature Studies* reaches all the latent possibilities, tastes and ambitions of the child; arouses, interests and develops its capacities and so prepares it for self reliance in its life work.

Training the mind means development of thousands of particular independent capacities, the formation of countless particular habits, for the working of any mental capacity depends on the data with which it works. The surest way to general improvement of a capacity is to train it in many particular connections.

The old style public schools were conducted on the theory of preparation for high schools and the Collegiate Institute. They again prepared for college and the University, but what a small proportion complete the highest course and pass through the greater institutions of learning. A very large percentage of all the children to-day leave school for one reason or another at 14 to 16 to begin the struggle for life with only the 3 R's and a slight knowledge of other studies.

The public school teachers of today and those who train and direct them are fully aware of the magnitude of the task which changing industrial conditions have thrown upon them.

It has taken a long time, nearly a century, for the people on this side of the Atlantic to realize the necessity for meeting this change.

One of the greatest things Napoleon did for France was to decree that every child in French schools should be taught to draw. What is the result— France is considered to be the most artistic nation on earth. Napoleon had an eye for the beautiful and in his victorious conquests sent to Paris every art treasure he could lay his hands on. He knew the value of culture and aesthetic training and believed in giving to his beloved France every opportunity to cultivate the public taste. He annexed all the finest specimens of painting and sculpture as spoils of war and sent them to help educate his people. They were taken from countries mind you, where art had not been taught to every child, but where it was the natural outcome of the aesthetic culture and appreciation of the people.

Of course Napoleon afterwards had to give most of them back again, or rather France was obliged to, but they doubtless had their effect on the Parisians, for nowhere to-day is there such evidence of artistic feeling. Every building put up in Paris has to be of an accepted quality both in design and construction and in certain sections no building can be over a certain height or number of stories. There you have an instance where municipal art is a power, with the result that on every hand is uniformity of good planning and good taste, for the vista of long avenues, or magnificent perspective in not cut by obtrusive lines of sky-scrapers and other architectural monstrosities.

France is the recognized headquarters for fine design, whether it be in architecture, sculpture, painting or manufactures.

Ladies are not completely satisfied in the matter of dress unless they can have a hat or gown from Paris.

Germany many years ago realized that for the vast number of her children something besides the academic studies was necessary and she set about improving her educational system and again what is the result? Germany has risen to power and riches among the industrial nations through her technical and trade schools prepared for by the teaching of drawing in the lower schools. Children who are not to follow the academic path into the professions are trained according to their tastes and their abilities to meet the practical problems of life, and it is not the German blood but the German school that is conquering the markets of the world.

How often you pick up some handsome or well made article and find it is stamped "made in Austria" or "made in Germany." The most frequent examples of that are the popular picture post-cards, or Raphael Tucks beautiful coloured publications which, while hailing from London, you will find are marked, " printed in Germany."

Germany endeavours in the interests of national progress to make the most of the intellectual forces of her people, and therefor spares no effort, nor expense, to so direct her entire educational policy as to produce the highest intellectual, moral and useful development of all her children.

One might say that our own greatest progress along these lines the advance of culture, of artistic training and industrial design, began when the English nation realized at the opening of the first World's Fair, London, 1851, that English artisans lacked much taste, skill, and art training when compared with the workers on the Continent. Fortunately the English People had in the Prince Consort, one wise enough to take advantage of the mortification caused by the exhibition and at his instance the Government School of Design was re-organized and under the name of South Kensington and its branches soon influenced the whole of England. We can detect his sound advice in the speech to Parliament made by Queen Vctoria who said that "The advancement of the fine arts and of practical science will be readily recognized by you as worthy of the attention of a great and enlightened nation. I have directed that a comprehensive scheme shall be laid before you, having in view the promotion of these objects, toward which I invite your aid and co-operation." These important moves in the English school world were destined soon to have its effect upon teaching in America, for ere long a supervisor from South Kensington was secured to introduce Drawing as a necessary subject in modern education in the state of Massachusetts. Twenty five years of advance along aesthetic and artistic lines, in conjunction with the regular system of education brought America to receive at the Centennial Exhibition at Philadelphia in 1876, the same sort of shock that the English people had experienced in 1851, for the display of skilled foreign craftsmanship brought a realization that the countries here must improve greatly to compete with the state-trained artists of foreign work-shops. Two of the foreign exhibitions in the Centennial lent great aid to the movement for instruction in the arts. The first was the English showing, which indicated the great advance British manufacturers had made in the arts since 1851; the other was the work shown by Russian peasant artisans and the Imperial school at Moscow.

This technical training or art crafts exhibit gave a lesson which was destined to spread and develop through the high schools to the elementary grades of a score of cities, the constructive work extending beyond the work of the then well-known Kindergarten.

Another effect of the Centennial was the movement known as "Child Study," borne of the scientific attitude which was coming to be taken toward all knowledge. The plea was that the growing child be given large and varied opportunity for motor expression, for "doing," that is, through drawing and constructive work of all kinds. There you have the key to the "New Education" and why we teach art in the public Schools.

In the years between the Centennial and the World's Fair at Chicago, the process of development had worked wonders, and where a few small rooms sufficed at Philadelphia to display the educational exhibits, thousands of square feet were needed at the Columbian Exhibition. Scores of towns and cities displayed the work of the art departments of their schools. In this connection I had the honour of sending to the Woman's Building at the Chicago Exposition a large and varied exhibit of the art work of Hellmuth College, London, which I am proud to say won the distinction for Canada of being the only distinctive art display from any ladies' college in America. It is significant that a few years later the aesthetic taste of the people, cultivated by new ideals in art, architecture and the crafts, required at the St. Louis Exposition a special building of vast size to house the educational exhibits. Everywhere could be seen the impress of the philosophy behind the beauty of the school work. All evidence of set patterns, wiry designs and the drawing cards of our parents was lost in the progressive displays done in charcoal, crayon and brush work. All this was due to the more extensive teaching of model drawing, constructive work and applied design in public schools. The kindergarten work, all the drawing and methods of expression by the different grades showed the advance in appreciation and in the courses of study.

The general experience of the average school teacher to-day has shown the necessity there is to develop the natural industrial and artistic capacities of children, in addition to a good command of the three R's, that when they reach the ordinary age for leaving the elementary grades, say from 14 to 16 years, they will have distinctly shown their various mental and manual aptitudes, for experience has shown and the greatest authorities on education will tell you, that the true way to educate the children of to-day is to broaden the curriculum, that is to say, to add to Arithmetic, Writing, Reading, Grammar, Geography and History, (ordinarily described as the 3 R's,) subjects which arouse the attention and develop the reasoning and observing powers of the children along many subjects.

It has been found that training the hands and mind *together* develops reasoning and discriminating powers, and what we call *judgment*, in a way, that the old system of the 3 R's could not achieve. It has been proved advisable to give the boy or girl, say from 6 or 7 up to 14 or 16 years, a general cultural education in order to detect and develop all the latent possibilities of the child. By the means of this board curriculum which also includes art training, manual training, nature study, simple principles of science and domestic arts, we are able to give, not merely the additional training in practical things to a city boy, which he would have got had he been a country boy, and give the country boy the training which was missed by not being a city boy, and so produce a greater and more uniform capacity for thought and ability in the whole youthful population of the nation. When a child has reached the age of 14 or 16 this wide training, has developed a distinct evidence of his or her capacity and inclination for life work. By this system the child and the parents are able to determine with probability and even accuracy what vocation the child had better follow. The child is given a knowledge of principles which are necessary to culture, appreciation and the arousing of ambition. It is a great problem with parents as to what vocation their children are best suited, what talents or inclinations had better be encouraged, what line of work should be followed in life. In this age of progress and of competition, the boy or girl must find out what he or she will do best, to what each is best fitted in order to succeed. The child is sooner or later thrown upon his own resources and may be musical, literary, full of business or artistic ideas or have mechanical ability.

Usually you will find that the one who soon found and followed his or her specialty was the one you hear of most.

This is an age of specialization as well as progress in every line of work and thought, and where there is so much done in labour and in manufactures, there is all the more reason why the children of our public schools should have high ideals, an aesthetic and artistic training, not only as a matter of culture but as an economic necessity, individual and national, for the very simple reason that everything we use, except natural products, has to be drawn, designed or modelled. We construct nothing, manufacture nothing, build nothing, without first drawing, designing, or planning it. The result has some touch of art in its production by some one, some where, more clever than the laborer, or unskilled workman.

It is the skilled art training of public school children in Europe, beginning in the lowest grades, particularly in Germany and France that has given those countries their great commercial power and industrial supremacy, their culture and their lead in the race of national progress.

Are we going to keep up with the procession? Is there any reason why in future years we should go to Europe or elsewhere for designers or for the finishing touches of our products, for better made manufactures or more perfect machinery? Is it not better to give the children of to-day, the workers of to-morrow, the chance to compete with and surpass the work of older countries, for we have their experience to help them to something even better? We have here in Canada the vast natural resources which those countries lack, and by which the rising generation is going to benefit. It is for us to say very largely to what extent, and so I say besides the three R's let us also give *Resource.*

To show how much *drawing*, as one of the foundations for individual efficiency is considered necessary in the curriculum of the public schools of the United States I might give you a few items showing the number of hours per week now devoted to that subject in the leading educational centres, where its effect on the training of the rising generation has been carefully noted. You will observe how much more time in the week's studies is given to art than in our own schools. Buffalo, Detroit, Albany, San Francisco devote 60 minutes per week for all grades and in addition to this in the 1st and 2nd years 150 minutes are given to manual training; up to the 7th and 8th years, 180 minutes, an average of 240 minutes per week.

New York City gives 120 minutes per week in the 1st, 2nd and 3rd years. 180 minutes in the 4th, 5th and 6th year; 150 minutes in the 7th and 8th years; and asks for an appropriation of $33,000,000 to maintain its schools for 1909.

Indianapolis gives 125 minutes.

Boston which has always been held up to us as a centre of culture allots for the first 5 years of school, 180 minutes and for the next 3 years, 300 minutes per week to art, drawing and constructive works.

Speaking of Boston, I have in mind the effect of seeing a specimen of fine drawing on a small boy I know of. It was soon after he had entered the public schools of that city, and it may serve to show you the effect an example of good art may have on the untrained mind of a child, how it may influence his whole life or shape his whole future career. This small boy, seven or eight years old, was promoted to a class-room in a large school building, with 60 or 70 of his classmates and assigned to a certain seat. Large blackboards extended along two walls and one of the first things this small boy noticed on the board near him was a beautifully designed drawing of a Greek urn done in white chalk, the full height of the board. It was protected by a T square suspended against it. The graceful curves, the elegant scroll work of the decoration and the sweeps of the ornamental handle fascinated him. He had never seen anything drawn like it. He had been accustomed to fine things at home but had always drawn houses, tin soldiers and forts on his slate in a childish way; here was something so charming in design that he couldn't take his eyes from it. It appealed to him as something far beyond anything in drawing he had ever attempted, or even imagined could be drawn. Didn't he wish he could draw something as graceful and pretty as that! Then the teacher explained to the new class that one of her clever scholars of another class had drawn that vase on the board for her, and that he had done it so well that she wished to preserve it, keeping a T square hanging in front of it to protect it. When she said she did not wish anyone to rub it out when working at the board, because the boy who drew it had died, that beautiful design had a still greater value in the eyes of the new class and especially in those of the small boy I mentioned. The drawing may not have had any immediate effect in his own work and he does not remember doing any masterpieces in that line at that particular period of his education, but it had its result. His taste was getting cultivated; from that moment he had an eye for the beautiful. His appreciation for beautiful things had received a tremendous impetus. He may not have had time to follow out his desires in that respect, nor opportunities for doing so, but the mental image of that graceful design in brilliant accented white line on a soft black ground remains as a beautiful example of what art can do in uplifting the mind and cultivating the taste of the child.

Few of the large cities use the drawing book in any form. Printed leaflets prepared by the supervisor of the art work offer suggestions to the grade teachers which enable the latter to develop their own class work in an individual way according to the special needs of their environment.

This approach to the arts, aims to make all of the *drawing*, *construction* and *design* fit in together and reflect the social interests of the child. All the child's work is suggested by the seasons, his own activities and man's advance in civilization. His tastes and appreciation can be most easily cultivated by having the class room supplied with fine reproductions, or prints of the best examples of the work of the greatest artists, sculptors and architects; a collection of 100 masterpieces of art shown by means of the inexpensive modern prints, framed in long rows behind sliding glass can be hung along the walls at an expense of a few dollars. The sets should be displayed or hung at a height suitable for the smallest children to easily study the pictures. Specimens of fine design or colour, or Japanese ware are not expensive and add much to the equipment of the classrooms of to-day. Indiscriminate decoration should be avoided. The importance of art instruction, art education for industry and for the refinement of social life is hardly to be gainsaid.

If manufacturers at present throw poor, inartistic machine made goods upon the market to be bought by an indiscriminating public without imagination, taste or foresight to demand anything better, and not necessarily more costly, then we need a higher standard of taste as applied to things commonly bought and sold, for it would add in time largely to our manufactures and our material resources. It would add greatly to the pleasure and dignity of our lives and our children's lives. Let us train these children since we cannot so easily reach the parents. Let us recognize the psychological tendencies and social motives which make art significant to the young.

While giving them disciplinary subjects let us also give them an insight of the beauties of nature expressed in form and colour, show them fine examples of work done by master hands and give them the opportunity to express their own ideas, (and they have many astonishing ones). Let us allow them to work them out, use their latent motor forces their particular talents in some medium in which they will take more delight than in using pen and ink or even words. Usually a child will tell you a story or explain something that he has seen or imagined something that has impressed him, better by drawing or modelling it than he can in words. His drawing may be crude, his modelling bad, but he gives you the idea he is trying to express.

In this age of specialization, no one has time to train a boy as an apprentice in a shop for a certain number of years, teaching him all he knows himself, so that the green hand can finally pick up enough knowledge of the business to do his work properly. He hires someone at once to fill the place who can do the work, is willing to pay more.

Competition in the world to-day has become so keen that the best equipped applicant gets the job. The modern schools of France, Germany, England, Russia, Austria and the United States are teaching the children to fill some one of the trades, the boys theirs, the girls theirs, if they find they are forced into or are best adapted to that work in life, and whether they have a leaning to the letters, the arts, or the trades, they are all taught to draw, to appreciate the beautiful, because if they are taught what is good, their growing taste will in their future work lead them to abhor what is bad and reject what is ugly. It is a necessity of national as well as individual efficiency.

The greatest argument for public art education is the power it has of adding to human happiness by enriching life. Of course, we are a comparatively young nation and have the advantage of using older ones as object lessons. Shall we keep up with the procession, shall we advance to the head of it, shall we lead it? Let us profit by those object lessons and give the rising generation every facility to become efficient, nationally and individually. Let us all do what we can to instill in the men and women of to-morrow a love for the beautiful, in their environment, their work and their lives, and so cultivate their abilities and their taste that some day in the future the best things, the very best things, will be recognized or stamped with those significant and magic words "Made in Canada."

INSPECTORS' DEPARTMENT.

DEPARTMENTAL AID TO TEACHERS.

G. K. Mills, B.A., Public School Inspector, North Simcoe.

In the Public and Separate Schools of the Province of Ontario, there are over ten thousand teachers engaged in the work of educating four hundred and fifty thousand children below the age of fifteen. These teachers render the most important service to the State of any class of citizen. On the efficiency of their work depends not only the progress of the Province, but in a great measure the future of Canada.

As the future of the State depends on the character of its schools, and the school reflects the teacher, it is most important that every effort should be made to provide the means whereby the teacher may develop all the ability he possesses so that he may render the best service of which he is capable. These teachers have received the orthodox book-education of our Public, High, Model and Normal Schools. Since they have met the requirements of our examinations they have proved themselves to be intelligent absorbers of information, and because of aptitude, training and experience, the majority are skilled in imparting that information to others. Owing to the sifting process that goes on throughout all Public and High Schools, the teachers are among the intellectually brightest of the communities from which they come. They have youth, vigor and intelligence, and are earnest and devoted in their work.

Having educated these future teachers in a way that has seemed best, and having given them the best training possible in the time at our disposal, they are graduated. A course of study is outlined, text-books are prescribed, and these teachers are employed to impart instruction within these limits. Does the responsibility of the Education Department end there? It is true there are inspectors who visit the schools for two half days each year, to inspect the buildings, equipment, and the work of the teacher, to examine into the progress of the children, and to give such advice and assistance as can be given in this limited time. There is also the meeting of the Teachers' Association for two days each year. Apart from these there is little opportunity for improvement, and teachers receive insufficient mental nourishment for growth along the line of their chosen work. There is nothing to direct them to more intelligent methods, to inform them on educational movements in this and other countries, and to present to them in concise and readable form the best that has been written on educational topics during the year. There should be some source of inspiration, some authoritative medium of information and direction. At present the teacher, particularly the rural teacher, is out of touch with the educational world and plows his furrow alone.

It is easy to say that teachers should read widely and should inform themselves of all that has been done and is now being done along educational lines. Teachers are not acquainted with the sources of information, and their salary does not permit them to buy the necessary books, even though they did know of those that are worth buying. There is a great deal of twaddle written on educational subjects and published in book form. Comparatively few books on education give returns for the reading, and it is not expected that teachers, on their present salaries, will purchase book after book to read solemn platitudes and revamped school methods, or to strive to follow a writer who, beginning nowhere, expresses his hazy ideas in a cloud of words and vague terms, and finally ends nowhere. Occasionally a book is written or an inspiring address is given that should reach all teachers, but it is lost to them for lack of a medium of communication.

It may sound harsh and extreme, but I know of no milder terms in which to express just what I mean, when I say that the great majority of our teachers are kept in a condition of semi-ignorance and slavery. This has not been intentional, but is the direct outcome of the conditions under which their work is done. When we consider the smallness of the salary which does not permit of expenditures for mental improvement, the lack of contact with the business world, the limited sphere of activity, the exhausting nature of the work, the petty worries of the school room, the position dependent on the pleasure of others, the constant round of duty, the lack of opportunity for promotion with its consequent improvement, is it any wonder that many teachers have not shown that development of mind and character that their natural ability and early progress gave promise? Combined with these there is a very extensive course of study, an inspector to satisfy, parents to please, and the tyranny of a yearly examination to work under, with a public educated to count noses as the standard of success.

It may be said that similar conditions exist in any line of employment, but I know from experience that few exist to the same extent, and some of the most trying and exhausting do not exist at all. Many of the conditions are incident to the nature of the work and are unavoidable, but where assistance can be given that will improve the condition of the teacher and enable him to do better work, every effort should be made to provide it. We find that railway corporations provide excellent buildings with baths, gymnasium, library, lecture rooms and reading rooms in every centre where there are a number of employees. These reading rooms are provided with journals, magazines and papers, not only those relating to their own particular employment, but those containing the best literature of the day. Classes are formed to which suitable instruction and courses of lectures are given. In short, they are provided with everything calculated to improve the men physically, mentally and morally. Everything is free to the employees, as the directors are convinced that they are more than repaid by the better service given. Not only is this true of railway corporations, but all large employers of labor are following the same plan. If this treatment of employees is necessary from a financial standpoint, surely some such consideration should be necessary from an educational standpoint. The Province of Ontario is bigger than any corporation and the work of educating the children of this Province is more important than the earning of dollars for shareholders.

Teachers can do their best only when they have a broad knowledge, not only of the subjects they are engaged in teaching but of many others, and are acquainted with the best that is being done. They must understand and appreciate the movements in educational life, feel that they are a part of it and realize that aid is expected from them. They should know the best opinion on educational subjects and have presented to them the arguments of those who support different methods. Above all, they must be kept alive to the necessity for self-improvement.

To enable teachers to do all this and to provide them with the necessary information, instruction and stimulus, there must be some regular medium of communication between those who direct and those who carry out the directions. Were the requirements merely mechanical, illustration by the inspector and practice by the teacher would supply the need, but as the great requirement is not so much increase in skill as increase in knowledge and intellectual insight, there is need for some regular official organ of information and direction.

It has been suggested that teachers' manuals should be prepared which would guide the teacher in the order and method of dealing with each subject. While these would be serviceable in what may be termed the newer subjects, I fear the net result would be to decrease rather than increase the individuality and intellectual vigor of the teacher. I should welcome such teachers' manuals, especially for the young teacher, provided they were revised every three years, and in the meantime an educational journal were published under the authority of the Department of Education, in which all matters relating to the educational life of this Province are dealt with. Such a journal might include these teachers' manuals, or they might be issued as supplements to it.

The Departments of Education in England, Scotland and Ireland issue what they term "Memoranda" on the teaching of the various subjects of the Primary Schools. These memoranda contain suggestions and instructions as to different methods of dealing with each subject, and leave the choice of methods to the teacher or supervisor. Besides these there is a larger publication termed "Suggestions for the Consideration of Teachers" which includes the memoranda to the date of its publication, and contains many valuable suggestions. I have here some copies for your inspection.

New Zealand and Victoria, Australia, publishes a monthly journal under the authority of the Minister of Public Instruction. I have here a copy of the one published in Victoria which is called the "Education Gazette and Teachers' Aid." The teachers in both New Zealand and Victoria are Civil Servants appointed by the State. They are arranged into classes according to education, training and merit by an officer termed the "Classifier." The Gazette contains all notifications, appointments, advertisements, examination reports, original and selected articles on school topics, and in fact information about every thing affecting the work of education. Whenever any special publication is necessary, such as a course of study or a circular of information, it is issued as a supplement to the Gazette. A copy of this Gazette is issued free to every head teacher, and it must be initialed by the staff and filed for reference. In this way all teachers are kept informed on all matters relating to the educational life of the State.

To bring this matter before the Inspectors' Dpeartment for discussion, I would move, seconded by Inspector Chisholm, the following resolution: "That the Inspectors of the Province urge upon the Department of Education the need of some official organ of communication between all workers in the cause of education, believing that the best work can be done only when every one is acquainted with the movements in educational life and is kept informed of the best that is produced in its various departments.

EXEMPTION FROM EXAMINATION UPON THE TEACHER'S RECOMMENDATION.

ARTHUR BROWN, SCHOOL INSPECTOR, MORRISBURGH.

(I)

Why should there be Exemption? It is conceded that the teacher must have a competent knowledge at least of the subjects that he must teach. How shall that competency be ascertained? Hitherto, it has been by written examinations tempered by the confidential report of the Teacher. What are the objections to that method? It has been said that "Examinations are a necessary evil." It would be nearer the truth to say that they are not necessarily evil. What are the alleged evils? The first objection is that they lead the student to depend upon the text-book, to memorize words and statements without understanding them, in a word, that they lead to what is called "cramming." This is an impeachment, not of examinations, but of the character of the teaching, and incidentally, of the style of the examination papers, and is besides inconsistent. The character of the teaching need not be discussed here, and of the style of papers it is sufficient to say that of late years they are so framed that a properly prepared candidate can pass upon them, while a poorly prepared one would fail even were the text-book open before him. The inconsistency lies in this, that if it is an improvement, and is reliable, to abandon a part of the examination and take in lieu of it the Teacher's report, then the whole examination should be abandoned.

The second objection is that the pressure of the examinations causes so great a nervous strain that candidates fail, or "break down" in consequence. There may be instances of this, but the candidate of so nervous a temperament as to break down under the pressure of examination is not likely to be strong enough to bear the worry and nervous strain of teaching school. In many, if not most cases, however, it is more likely that the nervousness arises from a sense of lack of preparation, or from excessive application at the close of the term to make up for neglect at the beginning. This does not call for the removal of the examination as a remedy, but for the exercise of a little more common sense by teachers and pupils. But if relief be needed, why not divide the examination for Entrance to the Normal School into two parts as is done with the examination for entrance to the Faculties of Education,

If, however, some of the subjects must be dropped from the examination, why select those that are the most important of the Public School course of study, and of which Teachers need special knowledge, viz. Spelling, Geography, Arithmetic and English Grammar? Probably there is not an Inspector present who has not had forced upon his notice the weakness of some of his teachers in the latter two subjects as shown by their registers, annual and other reports, and correspondence. Particularly, is this the case with English Grammar. Allow me to present you with a few recently culled examples:—

(1) "It shall be very convenient for me to go."
(2) "I remain, yours respectively."
(3) "Some children are more healthier than others."
(4) "The first pupil has went to her own school."
(5) "I find that two have come up to the mark. There are two others whom I think would have came up if they had have had fair play. John only made 40, and he could have done much better had he have had full time."

These are literal quotations from correspondence of teachers in charge of schools, who passed their Junior Teachers' Examination at various points in the Province, showing that the defect is not a local one. Doubtless, contributions enough of this kind could be secured from Inspectors present to fill a book, were it desirable to do so. "If they do these things in a green tree, what will be done in the dry?" If with so scanty a knowledge of English Grammar they could pass the qualifying examination, what may be expected when the examination in this subject is removed altogether? And the causes of this weakness are not far to seek. In the first place the requirements in Arithmetic and Grammar in the present course of study for Second Class certificates are quite too low, scarcely different from those of fifty years ago, and where there is a difference, it is in favor of the old curriculum. (See the report of the Chief Superintendent of Education for 1858, pages 130 and 131.) In the next place, the iniquitous 40 per cent. minimum is bearing its legitimate fruit. In the past, under this system, a weakness in Spelling, Arithmetic, and Grammar could be atoned for by a good showing in the remaining subjects, including Latin, or French, or Geman, and latterly, the marks in Latin were made a bonus. All of these subjects are good, some of them excellent as culture subjects, but many are not subjects the candidate would likely need to teach, and they should not be used to excuse his ignorance of the subjects he must teach. Hon. Dr. Pyne once voiced his belief that too many "frills" in the school curriculum are objectionable, his meaning probably having been that frills are right enough in their place, not unpleasing to the eye, but that they should not be *necessary* in order to conceal the thinness of the garment underneath, and most people will agree with this. But to attempt to improve matters by removing the examination in these subjects altogether seems the height of absurdity. President Falconer, in addressing the Toronto Teachers' Association recently, said:—

"You do not have to know the literature of other nations if you know thoroughly that of the English nation, and if one reads well the literature of the past, and especially the Bible, with all its classical expression, one may grasp much of the best of what has been written."

Under present regulations, and with certain most objectionable exceptions, the meagre High School Entrance Examination is the only independent examination in spelling, geography, arithmetic and English Grammar that a teacher has to pass during the whole term of his preparation, and these subjects, as such, are dismissed from the course of study at the end of the Lower School of the High School. I have referred to objectionable exceptions. These are to the effect that candidates from schools that are not so happy as to be classed "Approved," are discriminated against, and subsequently required to pass an examination in these subjects at a Normal School center. Most unfair, because no consideration is given to the character of the teaching, the extent of the students' knowledge, nor the length of time they may have been in attendance at school. They are punished for some one else's sin, for lack of equipment or accommodation, while the candidate from the favoured school escapes upon the recommendation of the Principal as to his standing two years after these subjects have been dropped from his course of study. There is the further galling reflection that among those thus relieved from this special examination, there are without doubt, not a few who ought also to be subjected to the same trial. The statement is put forward that as both academical and professional training are now taken up at the Normal Schools, whatever deficiency there may be in scholarship can in this way be remedied. To this it is sufficient to say that if a whole session solely devoted to professional training was none too much, one or the other must suffer when both are taken. The joint system has one thing to be said in its favour—it is ancient if not venerable, for it was the system in vogue at the Toronto Normal School half a century ago. At the Normal Schools south of us, wherever the joint system prevails, the course covers three or four years.

(II).

Coming now to the High School Entrance Examination, we find the same principle of exemption, though to a less extent. The effect of this in addition to the ever present 40 per cent. minimum is seriously to impair the efficiency of the Public Schools. In close relation to this, and even more injurious in its results, is the placing of the Examination nominally at the end, in reality about the middle, of the work of the Fourth Form of the Public School. This leads the parents to believe that when their children have passed the Entrance Examination, they have completed the work of the Public School, and have secured all necessary educational equipment for their future lives, and so they then withdraw them from further attendance at school. That this is their belief and their practice may clearly be concluded from a consideration of the following statistics taken from the recent report of the Minister of Education:—

The total enrolment in the Rural Public Schools of the Province was 226,667. Enrolled in the Fourth Form, 44,875, or about 20 per cent. Enrolled in Fifth Form, 8,753, or less than 4 per cent. and *decreasing.*

If we put together the total enrolment at all the High Schools and Collegiate Institutes of the Province, 30,331, and of the Continuation Classes, 5,317, making a total of 35,648, and allow that half of these come from the Rural Schools, there are still left over 200,000 children of the Rural Schools who never get beyond the Fourth Form of the Public School. Now while the course of study of the Fourth Form is quite sufficient for children of 13 years of age, the age at which the Entrance is dismissing them from school, it is utterly inadequate as a preparation for citizenship. The small minority, it is true, attend a High School but, not one in fifty of these does so from a desire to better his scholastic attainments; it is almost solely with a view to taking up a profession. I fully appreciate the work of Continuation Schools, High Schools, and Collegiate Institutes; but I object to their doing Public School work, as unfair to the majority, expensive, inconsistent, and injurious to the Public Schools, and I say with regret and humiliation that the rank and file of the children of Rural Schools are not being educated so as to make intelligent citizens. One cannot speak too highly of the advances recently made by our educational authorities in providing better professional training for all classes of teachers, better remuneration for them, better equipment and accommodation for schools, more liberal grants as encouragement for trustees, and especially for the compulsory introduction of school libraries as the saving feature, by inculcating a taste for reading, but it is absurd to claim that the children of the rural sections are being educated in accordance with the proud position that the banner Province of the Dominion has a right to expect and demand.

The late Dr. McLellan, many years ago, while High School Inspector had this to say upon this subject:—

"It is the proper function of the Public School to provide what is usually known as a thorough common school education for every child in the country. This comprehends something more than a mere rudimentary knowledge of arithmetic and English grammar. It aims at the general enlightenment of the masses, and its superior limit cannot, therefore, be the multiplication table and the parsing of an easy sentence. The great object of the Public School is, not only to place within the reach of all a course of education sufficiently extensive and thorough for all the ordinary pursuits of life, but to create a national intelligence which shall be effective in national progress. Hence the Public School has a complete and well-defined end in view—a noble object of its own to accomplish. Those who look upon it as the insignificant beginner of an imperfect work, which is merely initiatory to that of a higher and more favoured institution, fail to comprehend its true character and object. It is not a mere *feeder to the High School;* to provide the latter with pupils is surely not the sole, or even the primary object of its existence. The High School, indeed, cannot exist without the Public School, but the Public School is independent of the High School. And, thus, while the High School forms an important part in a complete system of State education, the Public School is *absolutely essential* to the advancement of the nation. Hence the necessity of keeping constantly in view the high aim of the Public School, and of making it eminently efficient for its great work in general education."

(III.)

What should be done? What are the remedies?

(1) Raise the standard of qualification of second class teachers in arithmetic and grammar at least to what it was in 1871. (See the report of the Chief Superintendent of Education for 1872, pages 173 and 174.)

(2) Restore the examination in these subjects, and exact 60 per cent. (I might say parenthetically, that if Sir James Whitney would interchange the 3-5 Local Option Clause, and the 2-5 minimum examination clause, he would, on the one hand mightily please some of the temperance people, and on the other hand do a vast amount of good to the rising generation.)

(3) It is just as poor economy to do Public School work in the High School as to do High School work in the Normal School, and so I say next, place the High School Entrance Examination where it should be at the end of the Public School course, that is at the end of the Fifth Form. This is bound to come, it must come, to use an inelegant but forceful colloquial expression, "it

has got to come,'' otherwise the exodus of the children from the schools at 13 years of age will continue and the next generation be a race of illiterates.

(4) Raise the age of compulsory attendance to 15 years. This additional year at school would be of incalculable benefit to an army of children.

These may be considered drastic measures, but the situation is a serious one, and drastic remedies are necessary, and no man who loves this fair land of ours, and who wishes to see her hold her place among the nations can afford to be indifferent.

FIFTH CLASSES IN RURAL SCHOOLS.

H. H. Burgess, B.A., I.P.S., Owen Sound.

So much has been said or written on the purpose and work of advanced classes in rural schools that I am sure that I can say nothing new on the subject. We are all at one on the need of giving the boys and girls in the rural communities who cannot attend a High School, a better education than the standard set by the present High School entrance examination, an examination that is waning in importance every year, owing to the tendency in these days to belittle examinations. The pupils who attend school regularly and are properly prepared do not suffer any injurious strain during the time of the examination, but those who have idled their time during the school term and have not cultivated the power of application, may experience the effects of nervous strain. This is not the fault of the examination but of the individual.

The Public School leaving classes were called into existence to supply an urgent need, and these have developed into the present Continuation Schools, and the Department has made provision for giving abundant facilities to school boards for extending the work beyond the Public School programme. And in many small urban centers this has been done, and these schools are now ripened into small high schoools. They have done good work in the past and will continue to do so, but of these grade A schools I do not wish to speak. Anything I may say I wish to be considered as refering to fifth classes in rural schools only.

The rural school should give to the boy or girl who wishes to remain on the farm, or those who have no definite pursuit in view, an education that would not only incline them to country life but strengthen their ability to make country life a real success. This is a matter of education and at once raises the question of the School Curriculum.

Reading, writing, some arithmetic, some knowledge of keeping accounts, the ability to enjoy a good book, and to write a reasonably correct letter, a knowledge of the English language, of our institutions, and of the fundamental ideas of geography, to be able to consult a map intelligently, and grasp a route of trade or travel should be taught in every school. These are essential in the education of the individual, as every intelligent farmer knows. No one knows better than does the Inspector the character of the work done in the rural schools, and the average amount of education given the average boy of twelve or fourteen years. Too many never advance beyond the third reader. Many never reach that gade. Their education is of the most "scrappy" kind imaginable. They are unable to read an ordinary paragraph with any appreciation of its meaning, let alone enjoy a book. Reading is simply not taught beyond the second book for want of time. They are unable to measure a few boards, or calculate the price of a load of hay. As for the elements of book-keeping the great majoity of our teachers know nothing about it. The reason of this is not far to seek. Book-keeping instead of being taught in a form where it should be taught, is taught in the first form in the High Schools, where the pupils are young, giddy and not mature enough to comprehend the nature of a business transaction. The great need of the rural school today is a more thorough knowledge of the subjects to be taught, and more regularity in the attendance of pupils. Pupils can make no progress by attending two days one week, three the next, and one the next, etc. Yes, one of the urgent needs is some means of enforcing attendance, rather than enlarged courses of study.

But with all this I am in favor of a higher standard of work in the public school than that set for the entrance examination. An advanced class always proves an incentive to the ambitious boy or girl, and is of value to pupils who never reach the Fifth Class. If this country is to attain a high state of efficiency as a great commercial and agricultural nation the boys and girls of the masses should get beyond the Fourth book. Indeed the very solidarity of our country depends upon the education of the masses.

Then again if there be no higher class boys and girls may be compelled to leave school at the end of the Fourth book, pupils who otherwise would attend school a little longer to their advantage. A strong teacher, one with experience who knows the purpose of his work, can make a skilful combination of subjects and classes. Even to the lower classes there is great gain, and the general intelligence of the school is higher. It is an advantage to the teacher. She is kept in touch with more advanced work. It makes her read and keeps her mind from being that of a child. She grows mentally and is so much the better qualified to do better work in the junior classes. Many years ago almost every school prided itself in having a good fifth book class doing work for the then Third class certificates, but conditions then were quite different. Pupils did not leave the public school at fourteen years of age and under as now. Young men and women of twenty years or over are not found in the public school today. Moreover the character of the teaching has changed. Now the teacher undertakes to teach with more or less success every subject on the course, then the lesson was assigned and the pupil *learned* his lessons and the teacher heard the lessons. An advanced pupil heard the lessons of the lower classes and no ratepayer complained, but how changed all this today!

Again I do not find in my schools where there is a Fifth class of one or two pupils even the obligatory subjects at all satisfactorily taught. Nor in the average rural school do I think they can be for want; (1) of ability on the part of the young and inexperienced teachers, and these are the big majority in my Inspectorate at least; (2) for want of time in school hours and lack of the necessary equipment. The work of the classes up to and including the Fourth is in my humble opinion by far the most important work of the ordinary rural school, and if so the teacher should in no way be handicapped from doing her very best for these classes. The consequences are too serious to the average pupil.

In the majority of rural schools there is very little chance of a Fifth class from year to year. There may be a class this year and none for several years. In such cases trustees are not disposed to purchase a lot of costly equipment, nor is it reasonable that they should. Before any steps are taken to do Fifth class work all the conditions should be considered carefully, and no classes established simply because there are Regulations making provision for them. I like the idea of a union of sections for Fifth class work if such a class is likely to be permanent. This will prevent the work of the public school proper from being neglected or crippled

A COMPULSORY ATTENDANCE ACT.

(An Abstract.)

N. W. CAMPBELL, B.A., DURHAM, ONT.

The subject of truancy in the public schools—its cause and cure—has been a matter of deep concern to many prominent educators and legislators in different countries for nearly half a century, but it is only of late years that special attention has been directed to it and efforts made to apply remedial measures. In Ontario, the question has for some years received little or no consideration. It is true that here and there at long intervals the subject crops up for discussion, but neither in the public press nor in our legislative halls has it received any serious attention. Even in such educational meetings as this the topic has not been prominent in our programmes.

The reasons for this apathetic attitude of the public mind to a condition which involves a serious educational and financial loss, are somewhat obscure. Perhaps it is, that there yet lingers in many minds the feeling that the compulsory attendance of children in school interferes with the supposed individual rights of the parents and consequently there is some reluctance in enforcing the law. Perhaps it is because the commercial spirit has so seized our people that they have come to consider it defensible to profit by the paltry earnings of their children regardless of the greater personal and national losses to follow swiftly from their neglect to educate properly the future citizens of the country. Perhaps it is because they have been so taken up with the other recent advances made that they have had no time or inclination to discuss another subject. Probably, however, it is because they are ignorant of the prevalence of irregular attendance which has become so great as virtually to amount to habitual truancy of one out of every four or five of our children of school age during the greater part of the year—ignorant also of the enormous loss to the Province which must inevitably follow from the lower mental and physical training which results. In any case the subject is deserving of greater attention. The losses to the country are so considerable that in no other branch of the public service would such a leakage be tolerated without an effort to remove the cause.

Taking the statistics for my own county, it is found that the average attendance for any year is only about 50 per cent. of what it might be if all the registered children attended regularly. This means that only one half the registered pupils in the Inspectorate attend full time, or, that all the children attend only half time each year. Taking the ages usually covered by compulsory attendance laws, namely, 8 to 14 years, the average attendance runs about 70 per cent.; that is. the total number of pupils of this age attend school only about two-thirds of the legal number of teaching days in the year. So far as the teaching force is concerned, it is the same as if one-third of the pupils did not attend school at all, or, as Horace Mann used to say, that with all the educational machinery, complete, every third day there was not one pupil in attendance. If other counties have a similar showing, and there is good reason to believe they have, it will be conceded that the loss to the country is such as to demand some adequate remedy. I shall here merely state my reasons for thinking so.

Of late years, it has come to be recognized that the child is an asset of the nation; that he is the most important factor in its military power, in its industrial progress, in its commercial supremacy and in its vital soundness. If this is so, then surely it is a national blunder not to educate him properly to discharge aright the duties that will eventually devolve upon him as a citizen. Unless this is done the country must suffer irreparable loss in all that pertains to its highest welfare. In this discussion we may leave out of count, as being little affected by truancy, the five or ten per cent. of our population that enter the professions. Truancy affects more particularly the industrial classes, and to fit the children of these classes for the highest industrial citizenship, two things must be done for them. First, they must be trained for higher industry, and, secondly, they must be fortified against the debasing influences of low associates. Without these two it is impossible for them to do their full duty to the State, and it seems to me that the State is bound for its own sake to provide these and to insist that all the children shall participate as far as possible in the benefits derived therefrom.

The first is secured only by a higher education of brain and sense-organ, of mind and body. This cannot be done by fits and starts, but only by the patient, continuous accumulation, a little at a time, of the training necessary for the work. This means that the child must be physically fit to receive and profit by the training. Right here comes the necessity for intelligent medical inspection of our schools. It is sheer folly and waste to provide expensive and elaborate machinery as means to educate children while these children are so incapacitated or handicapped by disease or other disability that they cannot make full use of the instruction given. It means also that the children must attend school long enough and regularly enough to profit by the means provided; that they must be allowed, or compelled, if you please, to remain in school continuously for a period of such duration as will enable them to receive the higher training demanded. It ought to be said here, too, that the school life of the children must be immensely enriched if the desired result is to be secured. Whether this is to be done by introducing the manual or industrial element generally into our school system or by giving a fuller and richer content to the academic subjects already taught, or both, remains the pressing problem for our educational authorities. That some considerable progress has been already made toward its solution within the last few years cannot be denied by any well-informed person. It has been found in all countries where the subject has received attention that the old theory of "The three R's," is not sufficient for present needs and conditions. To maintain our place in the sisterhood of nations we must advance beyond that point. Prison statistics are sometimes instructive. Out of 1,423 convicts in our penitentiaries in 1907—the latest statistics available—1,128 could read and write. In penal institutions that have kept a record of such things, it is found that few of the convicts have gone beyond the second reader in the public schools. They have the little learning that is dangerous. Very many, too, attribute the beginning of their downfall to truancy. The question of a compulsory attendance Act therefore touches us at a vital point.

How to enrich the school life so that children would desire to attend regularly is a question of considerable moment to us all. There seems only one way, and that is through the teachers. We must have teachers of sufficient age and experience to understand the issues at stake. This the majority of the present teachers cannot do. Every honest citizen, therefore, ought to encourage and support every effort made to improve the status of our teachers. It is a fact well known to every public school Inspector that the school attendance would be largely and immediately increased if teachers possessing these higher qualifications and capable of giving this fuller, richer instruction were employed in every school. We must make it worth while for the children to attend school if we are to secure the full benefits of a compulsory attendance law or even of free attendance. This is especially true of children between the ages of fourteen and sixteen.

But, more important than all this, from a national point of view, is the moral side of the question—the fact that we must give the boy who is in danger of becoming a habitual truant power to resist the debasing influences of low associates. We must, if possible, strive to reach the point where our pupils are "no longer good by resolve, but so educated by habit that not only can they do right, but that they can do no otherwise than right." This, I believe, ought to be done, but whether it can be done by our present educational machinery, and under existing conditions is extremely doubtful. In many of the States of the Union, an attempt is made to cure this evil and to fortify the truant against evil companions by providing Truant Schools—in some places one in each county, or in a group of counties—to which habitual truants may be sent, for a longer or shorter period, and where they are continuously under the eye of expert teachers. In this way the habit of doing right is acquired and moral fibre developed. The results are generally reported upon favorably by the officers concerned. This may not be the ultimate solution of the problem, but in Ontario, we have yet far to travel before we reach this advanced point.

Besides the direct financial loss to the State from irregular attendance through the neglect of using the machinery provided, there are several other aspects of the case that merit consideration in this discussion. First, these is a loss in productive power. A low average mental power among the citizens means a lower productive power in all industrial lines. If our children receive only two-thirds of the training our schools are capable of giving them there is a corresponding loss to the nation in every direction. Or, it may be stated thus: If one-third of our children receive no education, or only a very imperfect one, one-third of the population will eventually be comparatively non-productive. There is here not only the direct loss from non-production, but an indirect loss, inasmuch as the other two-thirds have to support (in part, at least), this non-producing third. Remove this leakage by giving all the children a high grade education and there is at once an industrial and commercial uplift of the nation as a whole. We ought to take a lesson from the history of other nations. In 1876, Germany sent a Commissioner to the Centennial at Philadelphia to report upon the condition of German products as compared with those of France, Great Britain and the United States. The Commissioner did his work faithfully, and the substance of his report to his Government was, that German products in comparison with those of the countries named were "cheap and nasty." What was the result? Instead of berating the Commissioner for bringing in a report unfavorable to German industrial methods and products, as I fear would be done in some places we know of, the Government reconstructed the Educational System of the country from the bottom up. They recognized that the reform needed was an educational reform—that it must begin in the primary schools and be continued in all grades up to and including the university. It was so done. The wisdom of the action of the Government has been abundantly proved by the results. To-day, Germany can compete with the "Mother of Nations" even in the building of Dreadnoughts. Compulsory education was an important factor in this industrial reform movement. As an industrial nation, entering upon the serious duties and responsibilities of nationhood, can we Canadians afford to disregard the lessons taught by such events and experiences?

Again, there are the losses to the nation through crime, which I can but refer to in few words. - What is the value of a man to the State? Who can estimate the value of Thomas A. Edison to the United States? To the world? Who can measure the value of any man in any walk of life who performs his duty faithfully and well? And if this cannot be done, who can estimate the loss to the country of the "submerged tenth"—of the thousands of men incarcerated for crime—crime which could have been prevented by proper training and education in early life? What losses to property and life from accidents, largely preventable by the same means! What loss through the tying up of public money in jails, reformatories, penitentiaries, and such institutions, and finally, what loss in criminal prosecutions, legal expenses, etc., for the conviction and correction of criminals who are a menace to society. The point of all this is that the criminal class is largely made up of those who began the downward course by "playing truant" and falling into evil ways in consequence of absence from school. There is no doubt that very many of these serious public losses could be prevented by having a workable truant law and strictly enforcing it, till all classes of pupils would have a good public school education at the age of, say fourteen or fifteen. If with this, all those who desired it, were given a practical industrial course of instruction in some line, I believe the country would be the gainer by vast sums of money every year.

In framing a compulsory attendance law several things must be carefully considered. These things I shall discuss briefly.

1. The age limits that should be compulsory. Our own law fixes the ages at from eight to fourteen, both inclusive. This is the average period in most of the States of the Union and is perhaps as good as any. Of late years, however, all new legislation tends to begin the compulsory period at seven years of age instead of eight, and to make provision for the period between fourteen and sixteen, when the child is out of employment. This latter is most useful, for it is found that at the age of fourteen, the average child is too young to have fixed principles. A youth from fourteen to sixteen out of employment is considered to be in danger or relapsing into bad habits and thereby losing all the advantages he had previously gained from regular attendance.

2. The duration of the compulsory period per annum within the age limit. Here the greatest differences appear in the different states and countries in which a compulsory attendance law is in force. In some, a proficiency test is applied, in others, the period is left to the option of local authorities. In some, so many months a year; in others, so many days each week, quarter or year. And so on. Here, too, the tendency of later legislation is in line with our own law, to make attendance during the full school term each year compulsory within the age limits prescribed.

3. Machinery for the enforcement of the compulsory attendance law. Here I shall merely point out what experience has shown to be necessary to secure regular attendance. Truant officers must be appointed. In no reported instance has a compulsory law been satisfactorily enforced without some such officer specially appointed for the purpose. In urban municipalities the truant officer should be appointed by the school board, not by the municipal council.

There are many reasons why the enforcement of a compulsory school law should be part of the educational machinery rather than of the police or constabulary machinery of the municipality. The main one is that the odium of disgrace for truancy is largely removed, and the truant's after school life is not made burdensome by the taunts of his companions. The argument is sometimes heard, that, since the council has to furnish the funds it should control the appointment. This argument applies wth equal force to the appointment of the teachers. The council only furnishes the machinery for collecting the funds, but the same people pay in both cases. It is a case of administration, and it is not found expedient to attach the stigma of criminality to the truant. The officers appointed by the councils are frequently useless, because their fitness for the position is rarely considered as it would be by the school board. The truant officer should be paid by salary, not by fees based upon the number of services rendered. The reasons for this are obvious. The truant officer should have independent jurisdiction and should have authority to apprehend and take without warrant any pupil of school age found loitering on the streets or elsewhere during school hours. He should have power to enter factories and all places where children might be unlawfully employed and remove to school any children within the compulsory age limits.

In rural municipalities, however, the appointment of truant officers by the local school boards has been a failure, due largely to the fact that a local officer that will take action against his neighbors is difficult to get. A township officer or officers appointed by the township council would be removed from local influences and would doubtless prove more efficient and useful. I believe this amendment to the law has been made at the late session of the legislature.

4. The treatment of incorrigibles. This is perhaps one of the most important and difficult parts of a compulsory attendance law. Two methods have been tried and found more or less successful. The object of both is to save the habitual truant to society; to place him under such conditions as will eventually enable him to become a useful member of the community. These two methods are, the County Truant School already referred to above, to which all incorrigibles could be sent after other remedies have failed, and the Ungraded Urban School, a school with mixed classes under a competent teacher, to which truants would be sent till by closer application to their work they had earned re-promotion to their own proper form.

The Industrial School to which our own incorrigible pupils may be sent, provides in a remote way for the first of these methods, but for many obvious reasons it cannot serve the general purpose of the more local institution.

5. Penalties. These are of several kinds, and in different countries, vary from a warning to a fine or to imprisonment for a longer or shorter period. Without enlarging upon these, it may be sufficient merely to state the different persons or bodies upon whom it has been found necessary to impose penalties for non-enforcement of the law:

(1) The School Board or Corporation for refusal or neglect to enforce the Act. This should always be by way of withholding public school grants.

(2) The Truant officer for the same reasons. The penalty in this case should be a substantial fine.

(3) Parents for non-compliance with the law.

(4) The truants themselves for correction or as a deterrent to others.

(5) Those aiding or abetting truancy in any way, or those employing truants during school hours.

MEDICAL INSPECTION OF SCHOOLS.

PROFESSOR A. McPHEDRAN, TORONTO.

The importance of this subject is great—none more so. It is therefore appropriate that it should be considered at a meeting of teachers. It is a matter that comes home to them more forcibly than to any other class.

As others are to follow, it is not necessary that I should do more than refer to the aims we have in view, and make some general remarks as to how these aims are to be attained. Medical inspection of schools is no longer an experiment. Wherever it has been introduced it has soon met with the hearty approval of the public and has done much good.

Broadly stated, our aims should be to adopt the necessary measures:

First. To cure diseased conditions in the children attending the schools, and prevent the spread of disease to the healthy children; or, in other words, to take the necessary steps to insure the good health of all school children.

Second. To adopt the best means by properly balanced training, to ensure the highest degree of development of the child—mental, moral, physical—which is possible. This, I take it, is education in its highest sense. To succeed in such an aim we must adjust the training of each child to his or her mental, moral, and physical constitution. This, it will be said, is an onerous undertaking, but the education of the child, if properly carried out, will only be efficient in proportion to our success in so adjusting his training.

Third. To take stock of the mental, moral and physical condition of each child, making accurate detailed records of the results. School anthropometry is of vast interest, and of such practical importance in its bearing on our national development and efficiency, that it is a matter for amazement that it should have been neglected so long, especially in the older countries. We hear much of the deterioration of national efficiency in Britain, of the truth of which there is little doubt, yet it is only a matter of opinion as there are no records from which to compare the present with the past. You know that as we grow older, the tendency is to regard the condition of things in our childhood days as much better than those of the present. We remember the good impressions made then on our more receptive minds, and forget the struggles and difficulties in the successes. It is well that it so, else we should find it difficult to continue the struggle of existence. Our memories of facts are, therefore, not reliable tablets for accurate data. If the nation desires to take stock of its progress in the development of its people, then it must make at least as accurate records of its children, as the stock breeder does of his horses and cattle, and even of his dogs. It is only by making such records that we can determine whether the mental, moral and physical development of the race is improving from one generation to another. Each census gives the details, from one decenium to another, of the number of the inhabitants and their material prosperity, but not a word as to their efficiency—only the quantity receives consideration, not the quality. This is a young country, and it is of far-reaching importance to its future history, that action should be taken now in this matter.

These are the aims which we should keep before our minds. Two questions naturally suggest themselves:

First. Are they possible of attainment?

Second. Are they worth the necessary effort?

"Is the game worth the candle?" For my own part I have no doubt that "Yes" is the correct answer to both questions, and I have little doubt that you are of like mind, or will be so after you have given the matter full consideration. To fulfill such aims will be a difficult undertaking, but the good to be gained will be vastly greater than the effort required.

On the present occasion it is with the first and second aims that we have to do chiefly, and the relation of medical inspection to them. In this matter of medical inspection of schools, even in its most restricted sense, this country is very far behind. A few cities have taken a faint step in advance in so far as appointing a school nurse, and in this city a little has been done by the aid of two physicians under the direction of the Health Officer, but nothing has been done in the way of efficient systematic methods of inspection. Laws regarding efficient inspection were passed in Austria in 1873, and since then similar laws have come into force in the following countries in succession: Sweden, Argentine Republic, Hungary, Norway, Switzerland, Servia, France, Japan, Roumania, and Russia. Most of the German States have also adopted efficient laws, and in some parts of the United States much advance has been made. Britain had done little before the Congress held in London in 1907; since then a general Act has been passed and vigorous action has been taken in many localities. Sweden has long been foremost in caring for the physical welfare of its children, and for some years requires careful examination as to the physical condition of the school children. In Switzerland not only is there inspection, but in many of the larger centres clinics have been organized for the treatment of ailments and defects.

It will be observed that all the Anglo-Saxon countries are lax in this matter, and do not seem to have realized its importance. We in Canada are of the worst. This is largely due, no doubt, to the Anglo-Saxon's inborn regard for the liberty of the individual.

It is an old maxim that "An Englishman's house is his castle;" it is therefore assumed that he should be allowed to do as he pleases in it, even although he endangers the comfort and safety of his neighbors. We are not a whit more advanced than the worst of them. We may offer as an excuse that we are a young growing country, but so is Argentine, which ten years ago had a population of only 4,000,000 including Indians, and we as Anglo-Saxons regard ourselves as much their superiors. It is high time that the Anglo-Saxon awakened to the fact that the State has paramount rights to which those of the individual must be subservient.

In the earlier days of our history, our people had sprung from vigorous forebears, who had come chiefly from Britain to make homes in the forests of this country. The difficulties of the situation laid on all the necessity to toil and strive. The rigorous life was an out-of-door one, and, therefore, healthy, promoting a high grade of physical development. Under such circumstances there was relatively little need for, or possibility of, the hygienic supervision of the school life. As the population has grown and become less rural and more urban and crowded, its robustness has waned with the lessening of out-door life, and in the crowded centres the conditions of living have become more and more unsanitary. This degradation, as it may justly be called, has been greatly accentuated by the large influx of foreigners, especially of the lower classes from Eastern Europe, where baths are almost unknown. If "cleanliness is next to Godliness," we will hope there is a wide breach between these attributes. Many of these people are far from cleanly, and therefore not a few are infected with various diseases and defects, the most frequent being mental defects, epilepsy, tuberculosis, trachoma, various contagious diseases of the skin, diseases of the nose, throat and ear. These conditions are found much more frequently, of course, in the cities and in their most crowded parts, as foreigners tend to form into communities.

It is imperative that our children shall be prevented from coming into contact with any who are affected with such contagious diseases, whether they be foreigners or native born. That the danger of such infection is a real one requires no proof, it is only too obvious to all. A few years ago from the neighborhood of one of Toronto's schools, several cases of diphtheria were received into the Isolation Hospital. As the cases continued to be received the physician in charge of the hospital made an examination of the school, and found fourteen of the children with diphtheritic throats from which pure cultures of the germ were obtained. Could a more convincing reason be given than this for the necessity of effective medical inspection of schools? And it is only one of many that might be offered.

Medical inspection of schools aims principally at improving the hygienic surroundings of the child, correcting defects and curing diseased conditions, controlling the demands on the child so that they may not exceed his mental and physical capacity, and preventing the spread of contagious diseases. Such inspection would inculcate cleanliness and such teaching would spread to the homes, and result in their gradual improvement. This would be followed up through the services of the school nurse, as opportunity offered, by instruction in better feeding and care of the children. Much of the bad care children receive at their homes is due to ignorance, and many mothers will gladly learn better methods from the nurse both by precept and example. Wherever a Babies' Dispensary is established the mothers are eager to receive instruction of all kinds to enable them to give better care to their children. The need is greatest in the cities, but many in all parts of the country are also in great need of instruction in the importance of the better feeding of their children, and the means of doing it without materially increasing the expense. From a wide experience

I can vouch for the great improvement in the fare provided in the hotels and private houses in all parts of the country during the last few years, but there is yet much to be done. Many people show far more concern as to the care and feeding of their animals than of their children. They see to it that the animals are suitably fed and that they are housed early in the evening, while they give little thought to the children beyond giving them such food as they have for themselves, or such as the children care most for, however unsuitable it may be, and allow them to exercise their sweet will as to when they retire to their beds. The farmer would be horrified if his calf were not in his bed early in the evening, but his boy may sit, it may be, until midnight or later, if there is amusement on foot for the elders. The young human animal needs the suitable food and the early rest as much as the four-footed one.

The whole question we must admit is full of difficulties both sociological and economical. Medical inspection will be expensive, not so much in the physician's salary, as in the reforms upon which he will insist; reforms not only for the mentally and physically defective children, but, what is of more importance, for the benefit of the healthy vigorous ones, those who if given proper care will develop into vigorous men and women. The physician should be a reasonable man, so that to him power may be given to do things and order things to be done. His tenure of office should not be dependent on the caprice of school boards, whose personel as well as opinions so frequently change. He should be appointed by, and under the direction of, a central authority in order that the work all over the country may be done on the same general principle, and that a uniform system of records be adopted from which statistics of national importance may be compiled. He should be a man of tact so that he may secure, on the one hand, the co-operation of the teacher, without which his efforts could bear little fruit, and on the other hand the cordial support of the physicians of the district, to whom, of necessity, he would need to refer the children for such treatment as would be found necessary from time to time. Then the parents and general public must be considered; they must be educated so as to be able to appreciate the needs of existing conditions, and how these needs are to be met. They hold the purse-strings and nothing can be done unless the purse-strings are relaxed. We need both the co-operation of the public, and their money, and can only obtain them through the united efforts of the physician, the nurse, and the teacher. In all this the physician must lead and be in control; he must, therefore, be a well trained man, full of resource and energy. He should have special training in the diseases prevalent among children, so that he may promptly recognize the needs and how they are to be met. The actual treatment required should be carried out by the local physician, and, where necessary, in the public dispensary and hospitals. The various universities would gladly establish special courses of six months or a year, for the training of suitable young physicians, men and women, just as they do now for the offices of public health.

That such special training is necessary is evident from the fact that he has to be a leader in:

1. The actual inspection of the children.
2. Dealing with infectious diseases.
3. Securing cleanliness.
4. Searching out and separating into special classes, the mentally and physically defective.
5. The investigation of home condition.
6. The examination of the sight and hearing of the children.
7. Making anthropometric measurements and records.
8. Securing the hygienic state of the school.

To obtain and retain the services of such capable many-sided young men and women, good salaries will be required, and it is not necessary to say that the return would far more than justify the outlay.

Of the school nurse I need not speak, as others are to discuss that part of the question. Her services are indispensible in carrying out any scheme of medical inspection.

Of many of these phases of the question there is not time to speak, *e.g.*, such as truancy and incorrigibleness, both of which doubtless are often due to physical discomfort. If this could be removed the difficulty in managing the child would often disappear. Backwardness is often due to defect in sight or hearing, or to difficulty in breathing on account of obstruction in the nose from unhealthy local conditions. Practically every mouth breather, not only looks stupid, but is relatively so, and the appearance can be relieved and the intelligence brightened by removing the nasal obstruction.

The improved condition in the school would be reflected in the homes in their greater cleanliness, more fresh air, better food and clothing, and increased interest in all that pertains to life and its true interests. This means greater culture, an urgent need in this country. It would lead, I would fain hope, to the exercise of better judgment in the training of the child both at home and at school. We seem to forget that the young child learns chiefly through its muscles, doing what it sees the parents and other elders do. The education through the muscles grows gradually less as the intelligence develops but the muscular channel is never closed. That being true, why should any young child be kept in school for five or six hours a day? The workman refuses to toil more than eight hours a day, yet in many schools the youngest child is expected to toil mentally for six hours, a toil which is far more exhausting than any manual labor. It is to be hoped the day is not far distant when the child will be taught to play systematically, real play, not any sham, and as he grows older, gradually taught the power of concentration on such work as he can understand, certainly not mathematics or other abstruse subject. Such training would be in a high degree disciplinary because neither play nor work could be enjoyably carried on without the child subordinating his own wishes to the interests of the whole.

With the growth of culture at the home, discipline there would also increase and who doubts the need of it in either the home or the school. Our schools are often severely criticised for their lack of culture and discipline. However much they merit it they have this to condone their failure, the want of culture and discipline in the home, and without that it is vain to expect it in school or anywhere else.

All this may seem a "far cry" from medical inspection, but surely on sober thought the relationship is evident, not only evident but essential, for who can doubt that one of the most important elements of success is the good physical condition of the child. The near future of their country will be in the hands of its present child population, the country's interests therefore demand the best possible preparation of the children for the duty which lies before them.

TRUSTEES' DEPARTMENT.

MILITARY TRAINING IN THE SCHOOLS.

S. TRUMAN.

When last year I brought forward the motion which is the basis of the few remarks I have to offer, it almost seemed as if in the opinion of this convention, that the question of Military training in the public schools was a matter of comparatively little moment.

However, the fact that the Province of Nova Scotia has adopted a measure of what we discuss here this afternoon that the Militia Department has by Order in Council approved and agreed to assist in the scheme; further that it was stated here last year by a member of the Advisory Council that the Minister of Education for Ontario had been approached with a view of enlisting his co-operation in introducing military training into the schools of Ontario, also that the scheme has been freely discussed during the past year by the press and that the Minister of Milita stated last winter that he hoped within three years to have military training in all the schools of the Dominion furnish substantial reasons why a body supposed to represent the school trustees of the province should have something to say about this important matter.

The scheme is now fairly launched in the Province of Nova Scotia. By agreement between the Minister of Militia and the Education Department of Nova Scotia Physical drill with Military training as the objective point was introduced as a compulsory study in the schools of the sister Province, in August last.

Exception to the statement that Military training is the end in view has been taken by some who support drill in the schools but there can be no reasonable doubt as to what the actual intention is in this matter.

Regulations requiring a knowledge of and ability to teach physical drill by all teachers above the third grade, have been adopted while for male teachers a more extended course of advanced drill and the use of rifles has been prepared. Provision has also been made for the instruction of teachers in these courses at special centres, and three years of grace have been arranged for during which time all teachers will be expected to qualify according to rules laid down and pass an examination before our officer or instructor of the Militia department. All teachers except the lowest grade will be required to take up drill with their pupils up to fourteen years of age under what is called grade B Military certificate, while male teachers will qualify for grade A and upon the formation of Cadet Corps in their schools and becoming members of the force will be entitled to a bonus of from $50 to $100 per year from the Militia Department. It is further provided that cadet corps will be furnished by the Militia Department with belts, caps and a proportion of arms and ammunition where judged advisable.

I have given this brief summary of the scheme because in many communications to the press upon the subject the military side of the question is kept in the background, and the matter is treated as if physical drill was the most important part of the plan. Such, however is not the case, the fact that the Militia Department has so actively interested itself and that influential officers of that Department are busily engaged in keeping it before the country, leave no room for doubt that we are on the eve of a military propaganda, the like of which Canada has never seen.

To the purely physical drill part of the scheme under consideration there can be no objection, provided that it can be carried out without unduly interfering with the ordinary work of the schools.

But what we do object to is the military character of the scheme to the transformation of our teachers into military officers, to the unnecessary multiplication of cadet corps in our high and public schools with uniforms, rifles and the wearing of side-arms and as much of the glamour of war as it is possible to introduce to the constant and insidious instilling into the minds of our growing youth at their most susceptible age that patriotism can be founded on nothing else than military preparation, to the forcing into the schools of what we believe to be an unnecessary subject to the disadvantage of subjects of daily practical every-day use to our people, and doing these things on the plea that it is necessary to arm against our powerful neighbours.

Let us glance very briefly at some of the arguments advanced in support of military training in the schools, we are told that the physique of the people, especially the rural population is deteriorating, and these people would like to see young Canada become strong and sturdy. We are told in high authority that the ordinary attitude of the farmers is clownish and that they would become like judges or generals if they were only military trained. It is openly stated that the scheme furnishes the solution of the problem of training a large military force at the minimum of expense, thus revealing the soul of the whole movement.

One fact stands out prominently in this affair that there exists in Canada to-day and strongly represented in this city, a party who strive to impose upon this young country the burden of a large military establishment, whose efforts are at present directed to fasten upon the public schools the beginning of that system, and who hold before the people the bugbear of invasion, and the necessity of maintaining a great armed force as a means of forcing people into submitting to the ends which they have in view; we are dutifully expected to believe that an irruption of angry Orientals may be expected any day, the fear of a German invasion of England is with due emphasis held over our heads, while a prominent officer of the force speaking in this city solemnly warns us against what he is pleased to call the uncertain traits of our neighbours; a rashly spoken sentiment which common sense would have told him had better been kept to himself.

We are likewise told that this movement will have a great moral influence, that it will teach our boys obedience, promptitude and subordination, and be a means of all kinds of good to the whole nation. Our teachers are supposed by reason of becoming members of the force to have greater authority in the schools and we are informed that home training among us has become so lax that our only hope is in training our boys in the schools by military methods.

Similar statements are being made all over the country until it would almost appear that heaven and earth was being ransacked to furnish reasons why the people of Ontario and through them the Dominion should be stampeded into accepting a system for which there is no popular demand and which is unwelcome and we believe injurious to the best interests of the people.

For one, I refuse to believe all this stuff. I do not believe that we are such a race of weaklings as these people would have us think we are. I fail to see that physical drill or Military training will work such a tremendous reformation as we are asked to believe it will, and still further I refuse to believe that we are in such a hopelessly deteriorated condition that drill in the schools is our only salvation.

Instead I see designing enthusiasts aiming at a huge organization which will furnish a fresh crop of emoluments and tinsel honours at the expense of the great mass of the people, creating in time a small army of inspectors, drill masters and officials of all kinds added to one already costly and overgrown military establishment.

At this present time the Dominion Exchequer staggers under its tremendous load and yet, while the sentiment of the people favour retrenchment and economy in public business, we are asked to adopt a new departure in military affairs, the end of which financially, as well as otherwise, no man can foresee.

I said a moment ago that we are told that the ordinary attitude of the farmers was clownish. You will find that sentiment if you care to look for it in the writings of a distinguished advocate of this scheme and I will not deny the charge, but as a farmer, and one whose lot has been cast almost wholly among the rural part of our population, I protest against such an argument being brought forward in support of such a momentous change. We know how that bearing which seems so distasteful to some people comes to us. It is by hard and unremitting toil those hard hands, those bent shoulders, ought not to be called clownish. They are the insignia of this nation's nobility. It ill becomes any man be his object ever so noble, to sneer at any man's bearing where that bearing has been brought about by that faithful labour which has made the splendid landscape of our country what it appears to us to-day, surely we were not ashamed of our fathers' bent and toil worn forms, that splendid band who from the British Isles, from Germany, from Pensylvania came to this Province and with strong arms and resolute purpose carved from the forest wilderness this fruitful land. They were not of distinguished or military bearing, but they had ready hands and honest hearts and strong determination, and without the forced attitudes and glittering uniforms of militarism they laid a foundation upon which we will do well to watch carefully what we will build thereon.

We are told of the great moral influence which will be exerted by this movement, and further that the trained cadet is always for peace and quietness. He will not join riots nor create disturbance, but will always be found on the side of peace and goood order.

I trust it may be so, but it is not the experience of other nations. Witness the riots in Germany, the growing unrest in Japan, the labour troubles and dissension in France, among populations who have the most rigid military systems in the world. Witness also the scandalous conduct at the American Military Academies, conduct which their ablest officers seemed powerless to control.

The essence of military authority is force, plain brute force, far enough removed from the idea of suasion, of reason, of kindly example and precept, of skilful and sympathetic training, which we are accustomed to associate with the character of a teacher in our schools.

I fail to see how we can drill our boys, place arms in their hands, fill their minds with the possibility, or more, the probability of war without taking their attention from the serious duties of plain peaceful citizenship.

As Mr. Todd said here two years ago in his admirable paper on patriotism, it is well enough to have men die for their country, but we want men who live for it. We want men who place the certainties of peace and prosperity above the ruin and desolation of war. We want men whose life work is to lengthen the period of peace which this country is enjoying, rather than men who would shorten it by ill-judged and offensive military preparation.

We want men who are strong enough to declare that the North American continent can exist without war; men who from their places in the Legislature, from the Pulpit and Altars of our churches will combat the teaching of those who would make this province a hot-bed and centre of militarism. We believe that our Education Department, its staff and our teachers through the length and breadth of the province, can be more profitably employed than in training the youth of our land for the shambles of war.

Already United States public men are beginning to take note of the feverish activity in Canadian Military circles. Our enormous expenditure totalling nearly 45 millions in twelve years, represents an uncalled expense for so small a nation, while this scheme, if it is put in force, will add to it by leaps and bounds. If as we are told it is necessary to arm against the yellow peril, we stand shoulder to shoulder with the United States. Why should we arm against our ally? This talk of the uncertain traits of our neighbours, with similar remarks on the part of men in responsible positions is suicidal. On the other hand should a serious difficulty arise between ourselves and the United States, have we any reason to suppose that England would not sacrifice Canadian interests to Imperial Peace; why then should we arm for a hopeless contest which would end in inevitable disaster? I contend that Canadian interests will be best served by our teachers attending to their legitimate work by the people of Ontario refusing to countenance this scheme and by the prunning within narrower bounds of our excessive military expenditure.

But what of the stranger within our gates? Thirty-five languages are spoken in this city; foreigners are here, thousands of them. They have left the distant provinces of Central Europe because they knew not the hour when their fields and villages would be trampled under the feet of invading hosts, these people have lived for generations under the shadow of war and their bondage has grown harder and more bitter as Germany, Russia, Austria and the Balkan States have armed every man within their borders. They have been told that Canada was a land of peace and yet the din of military preparation meets them at the door and their children meet the drill master in the schools.

What will they think of it?

45 per cent. of the population of the North West are of alien blood, and the same remarks apply to them. A most serious responsibility rests upon those who would impose upon these people the very bondage from which they have so recently escaped, and if possible a still more serious responsibility rests upon those, who, without adequate course, bring the children of Ontario under the yoke of Military domination.

I have but touched the fringe of this subject.

Neither have I treated it as something which we might spend a pleasant hour in discussing, and which might not be of any special practical importance.

The question is immediate; pressing, concerns the most vital interests of our homes and people, involves a radical departure from our previous military policy and will have, if it is put in force, far-reaching consequences for our people.

I spent six years of my boyhood in the highlands in the township of Uxbridge, from where we lived a hundred miles of Lake Ontario could be seen, and we could see :

> "The ships sail east, the ships sail west
> Out on the broad befriending breast
> Of the inland beautiful sea,
> The flowing sapphire sea."

But no hostile fleets were there, and no smoke from hostile guns has been seen for nigh a hundred years. Turning from the North American Continent to the south we see upon a peak of the Andes, a figure of the Christ, beneath whose out-stretched arms was signed a few years ago a treaty of disarmament and perpetual peace between two nations of one blood and when we read that among the forces which combined to bring about this result, our own Edward the peacemaker, the noble son of a noble mother was not the least influential, we may well wonder whether the statesmen of nations who would scorn to learn lessons in other matters from the despised republics of the south might well consider whether the most extensive and splendid boundary in the world between two nations might not better be kept forever unpolluted by war.

I believe it can and should be done, and I believe that a principal factor in the accomplishment of that end will be to leave our teachers in the future as in the past in the useful and statesmanlike duty of teaching our children that the heroes of peace are greater than the heroes of war.

OUR PUBLIC SCHOOLS THEN AND NOW, WITH A GLANCE AT WHAT MAY BE ANTICIPATED IN THE FUTURE.

ROBERT McKNIGHT.

If in the conduct of public affairs, the greatest good to the greatest number is what should be sought for, it goes without saying, that the first and best consideration on the part of all who are engaged in shaping our educational policy, and in administering school law, should be given to ensure the fullest efficiency of our public schools; not only because they lay the foundation upon which the superstructure of a higher education is reared, but because they afford a great majority of the youth of the land the only scholastic training they ever get. This is made manifest by every annual report published by the Minister of Education. From his report of 1907 (the last published) we learn that 399,000 pupils were enrolled in the public schools of the Province as against 30,000 in its high schools. The educational claims of such a large majority is clearly paramount.

I am not unmindful of the necessity for, nor of the good work being done by our Secondary Schools, our Universities, Trade Schools, and Industrial Institutions, all of which are to be commended and encouraged. They are doing a good work in preparing men for the professions, and training others in the technical knowledge necessary for the development of the resources of the country; but with these I am not now dealing.

If in my subsequent remarks I advert to some weaknesses which tend to prevent the Primary Schools from accomplishing the best work possible, it is not in the spirit of fault finding I do so, recognizing as I do, that it is much easier to point out defects, than it is to provide, or even to suggest remedies.

My recollection of, and connection with public school matters carry me back to the fifties, since which time some outstanding changes have been made that have been far reaching in their effect. At that time, and down till 1869, the Irish National Series were the authorized text-books for our schools. I may be permitted to express the belief, that the readers of that series possessed features as text-books that in some respects were superior to any that followed them. They were filled from cover to cover with useful information, systematically and progressively arranged, affording the teacher an excellent opportunity of supplementing the text, when his own information enabled him to do so.

The contents of subsequent readers have been largely made up of gems of English literature in prose and poetry—probably designed by the compilers to enable the pupil to acquire a correct literary style—something not learned from isolated passages or text-books.

At the time I refer to, every county or district had a board of public instruction—consisting of the local superintendents of the respective municipalities within their bounds (every township had a local superintendent). It was the duty of those boards to examine candidates and grant teachers' certificates. Needless to say, it was not necessary then for candidates to be conversant with the principles of pedagogy (a pedagogical training will not make a successful teacher—he, like the poet, is born and not made, the true teacher is he who leads his pupils into the knowledge of *how to study*). The subjects in which the candidates were examined were not as numerous as they are now. Notwithstanding, what was taught, was well taught, and the work done in the schools met the requirements of the country then, quite as fully as the work being done in our schools are doing now. The character of the work partook of the character of the teachers—most of whom were ambitious young men, whose ulterior aim was to procure a better education—teaching being the readiest means by which the necessary funds to do so could be procured.

A large proportion of those young men subsequently became prominent in business, in the professions, and in public life, show-the material of which they were made.

That class is no longer available for work in the public schools, the growing prosperity of the country, and the general increase in wealth, enable the parents of such boys to send them direct from the public to the high school, and on to the university. There are still, however, a few such boys engaged in the work, but too few for their work to have much tangable value.

Time forbids a detailed statement of the evolution that has taken place in matters pertaining to public school education. Amongst the changes may be noted the almost entire disappearance of the old historic log school house with its crude accommodation and unsanitary environments—their places being taken by substantial, commodious and well-equipped buildings. No less marked is the change the curriculum has undergone, whilst that in the sex of the teacher is most pronounced, and much to be regretted.

The progress in scientific knowledge and increase in general intelligence necessarily brought about an enlargement of the programme of study, but it is doubtful if it is not now over-loaded, including as it does, subjects, a knowledge of which can be of little practical utility to a large proportion of those who are compelled to spend time in their study—apart from the mental discipline they afford. Jrovision for some relief from this state of things has recently been made, but, upon this subject I need not dwell, as it has frequently been discussed at the meetings of this Department.

The aim and object of our public schools is, or ought to be, thorough instruction in the rudiments of an education. They do not, and cannot educate youth in the broad sense of the term. Neither is a university degree an evidence that the holder is an educated person. It is a proof, however, that those who have secured it, acquired a sufficient knowledge of the subject matter of the text-books used, that enabled them to pass the required examinations. The poet Burns must have been afflicted with an over-flow of bile when he alluded to "College Classes that go in Stirks and come out Asses."

There is no limit to the acquisition of knowledge. The thoughtful man is a student all his life, and he will meet with and find schoolmasters in plenty at every turn in his career. As a wise builder lays a solid foundation for the structure he intends to rear, so a common school education serves as a foundation upon which the recipient may build through life. The footing course of this foundation is the three R's. To read intelligibly, to cipher correctly, and to write legibly, are the basic fundamentals of an education. Is instruction in these branches of an education now taught as well as they formerly were? Doubtless a diversity of opinion is entertained on this subject, or mayhap an answer in the affirmative will be generally given to it. Be this as it may, my own belief is, that some of them are, and some are not. All, however, will agree, that to be a good reader is an accomplishment worthy of being sought after, and labored for, but I doubt if there is as large a proportion of good readers amongst our school pupils now as formerly. Such should not be the case, because there never was a time in the history of the world when the saying was as true as now, that "of the making of books there is no end," and there never was a time when reading was as general by both young and old as now. Why then have we not a large proportion of good readers? I attribute it to the fact that outside the school room nearly all the reading done is voiceless reading, and the silent perusal of books and papers will not make a good reader. I can suggest no better remedy for this undesirable state of things than to make regular recitations of memorized pieces in prose and poetry systematic school exercises—beginning when the child can understand the meaning of such passages, and continuing through school life. I never knew a good reciter to be a poor reader.

The inductive and logical method of solving problems as now practiced is a decided improvement upon the aforetime plan of doing so by rule; grammar is also better taught.

Perhaps good caligraphy is not as important (now that the typist is so abundantly abroad) as it once was, but it is still an important part of an education. The general use of the scribbler in the schools, and in home work as well, is not conducive to good writing. It is likely to make the user what its name signifies, a scribbler, but I have a more serious indictment to make against the scribbler. I believe it is responsible, to some extent at least, for so many children being obliged to wear spectacles, their eyes resting so much and so long on white paper must injuriously affect the sight. Last year the school trustees of this city caused a medical inspection to be made of the physical condition of the pupils. Doctors O'Reilly and Graham, who made the inspection reported 752 wearing glasses, and 2,035 cases of defective vision. This condition of things is not confined to Toronto, as the following statement appeared in one of the Brantford papers a while ago will show: "As a result of the medical inspection of the schools, lately inaugurated, scores of defective vision among the pupils have been discovered;" but I suppose the scribbler has come to stay—then why should it not be made of tinted paper that would neither oppress the vision, nor lessen the legibility of the writing. We often see clear print and legible writing on tinted paper.

The most outstanding change time has wrought in the evolution of the school matters, is in the sex of the teachers. I began the work of public school teacher fifty odd years ago, and followed it for six years. During that time I knew of but two female teachers in the County of Simcoe where I then lived. What a change time has wrought in this respect? From the annual report of the Minister of Education for 1907 (the latest published) we learn that of the 9,137 teachers employed in the public schools 7,278 were females, and this proportion is going on increasing, because we learn from the same source, there was a decrease of 91 males and an increase of 135 females from the previous year. All the graded and continuation schools have one or more male teachers, and those being located in urban municipalities, it follows that the rural schools are almost entirely under the management of females. Admitting their zeal and faithfulness to duty, and their adaptability to the management of little children, it cannot but be a cause of regret to every Canadian, who entertains high ideals of patriotism to know, that the youth of the land—who will be its men and women to-morrow, are being trained for life's duties (as far as scholastic training accomplishes that work) by an army of girls, whose outstanding characteristics (as teachers) are youth and inexperience—their average age not exceeding twenty nor their experience more than six years. Both are a trifle higher in urban schools.

To find a remedy for this undesirable state of affairs is a problem that is difficult to solve.

The Department of Education realize that a change for the better is much to be desired and an increase in the legislative grant has recently been made, with the view of encouraging higher salaries by which men may be enlisted in the work. County model schools have been abolished and other regulations adopted intended to raise the qualifications of teachers and give added dignity to the profession; but it is doubtful if the latter will not result in a dearth of teachers of either sex, in the near future. A very substantial increase must be made in the salaries of male teachers, before an increase in their number can be hoped for.

There are other good reasons for the scarcity of male teachers in this land of opportunities; apart from the meagre salaries paid, which now average about $550 dollars—little more than the scavengers on the streets of this city earn. They cannot look forward to a life of domestic felicity and comfort on such an income. The fact that they are in no sense their own masters; added to the other fact that they have no assurance of permanent employment beyond the age of forty-five years, these, together with other non-encouraging features are sufficient to deter a thoughtful man from adopting teaching as a calling.

If the plan was generally adopted that obtains in some other countries, of adding to the school building a teacher's residence, with sufficient garden ground attached, on which he could employ his leisure hours, in growing some of his household requisites, and a salary paid that would enable him to maintain his family in a fairly respectable manner, the case might be different, because there is a fascination in teaching that is all its own.

I believe trustees as a rule would like to remove many of the obstacles in the way, but the opinion prevails that our school system is an expensive system, and taxes are burdensome. School taxes cannot be considered excessive, when the annual cost of tuition per pupil per year does not exceed $15 as is the case now, and a part of this cost is met by legislative and county grants.

If the general public could estimate the added value of a years' tuition to the children of a school section by a capable, well qualified instructor, as compared with that work indifferently done, the tax-payer would gladly endorse the work of trustees who sought the best teaching material that circumstances permitted, because there is a parsimony in teachers' salaries that is not economy.

If in the near future the consummation so devoutly to be wished is not realized, there is a gleam of hope in the thought that when the time comes, as come it may, when our universities and colleges shall have turned out more doctors than there are patients, and more lawyers than clients, the over-flow of graduates may be available to man the public schools.

MIGHT NOT A LARGER PLACE BE PROFITABLY ASSIGNED IN OUR EDUCATIONAL SYSTEM TO NIGHT SCHOOLS AND EVENING CLASSES?

REV. W. T. WILKINS, B.A.

Mr. President, when, toward the end of November last, you wrote requesting me to aid you in providing a bill of fare for the present meeting of our Association by consenting to read a paper, you may remember that I replied expressing my willingness to do so if you would kindly suggest a suitable topic. Your reply was, that you would be well pleased to have me on the programme for a paper, but that I must select the subject myself. Now, I have often found it more difficult to select a suitable text for preaching on than to prepare the sermon when a proper selection of a text has been made. I wrote to you, though possibly not as such length as I now state it, that I have long felt that a grave injustice is being done to a large number of our boys and girls—perhaps a majority of the population—who leave school to enter upon industrial or commercial pursuits, or begin their training for such, before their education in our primary schools can be said to be completed or decently rounded off. They are set to work as wage-earners; and from their sweat and toil a considerable portion of the school taxes is provided which are expended in the education of their brothers and sisters who are allowed to complete their public school course, pass through the high school and into our universities. And with what result? Too often to establish a social gulf between those who have been nurtured at the same breast and fed at the same table! For is it not a fact, that too many of those who enter upon a professional career—even those who have had the opportunity of coming in contact with the vaunted breadth and culture of a university career—yea, they and their children, come to regard brothers and sisters, their wives, husbands and children, as constituting the uncultured *masses*, forgetting that the foundation of that mental superiority, intellectual refinement, grace, culture, etc., etc., on which they pride themselves, as members of *the upper class*, was laid and cemented in the sweat of those whose too early diversion to grinding toil predestined them to descend from a common level to the inferior position thus so superciliously assigned to them.

I therefore suggested the topic which you were pleased to deem a proper one, and to which you have assigned a place on the programme. In suggesting this topic, however, I was not thinking alone of the native born, but of the vast hordes of immigrants coming to our shores—many of them from lands in which no adequate provision has been made for their education—a large percentage of whom are destined for and will settle in Ontario Of these many will in the course of a few years go to swell the number of so-called free and intelligent citizens—the independent electors who are to choose our legislators and assist in framing laws for the government of the community. Of these some are classed in the immigration returns as *children,* but many of them are but children of an older (and foreign) growth. All of them who are capable of receiving instruction should surely be in some way prepared for the proper exercise of the franchise to be entrusted to them when they become naturalized. After the subject of my paper was decided I found that the attention of others was being directed to at least some phases of it. Thus in "The Presbyterian" of December 10th appeared an editorial headed "Are we educating the foreigners?" I quote merely the opening and closing paragraphs but would direct your attention to the whole editorial as worthy of perusal. "Are the children of the non-British immigrants to Canada being educated? They are to be numbered now by the thousands, and before long they will be Canadian citizens. Is there a serious attempt being made to fit them for the responsibilities of citizenship? To many that is a more important question than an inquiry into their material progress, important as that inquiry would be. The evidence of the educational experts of the Province of Manitoba and Saskatchewan, where the great majority of the foreign immigrants have settled, is worthy of the thoughtful consideration of all patriotic Canadians." . . . . . . "The testimony of the public school inspectors of the Province of Manitoba and Saskatchewan is plain, to the effect that a large percentage of the children of the foreign settlers are growing up to an illiterate manhood. It is unnecessary to point out the significance of this. The bald fact is this: that many thousands of foreign children in this country are not being educated."

To write a book upon the subject would be comparatively easy. It is a different thing to condense into the limits of such a paper as I might fairly expect the members of this Association patiently to hear and consider, amidst the multiplicity of matters to which their attention is called when here assembled, even a tithe ot the material I have gathered upon the subject since the theme of my paper was chosen. I feel, however, that my desire to contribute something of practical value to our programme will in a measure be attained, if I can present in an intelligible way some of the main factors that enter into the problem and elicit a discussion of the subject, and a free interchange of opinion thereon among those present. "The desirability of holding evening classes and night schools," for so the topic is expressed in the printed programme, may be considered from two points of view:

I. In its bearing upon our native born Canadians, who even before the work of the primary school is completed, leave school to enter upon industrial or commercial pursuits.

II. In its bearing upon the vast hordes of immigrants, many of them from lands where the English language is not spoken, and not a few from lands where no provision has been made for their education in any language; but who are soon to be incorporated among the citizens of our Dominion.

When I set myself to the task of gathering information as to the need and what is being done to meet it, I naturally turned to the latest report then to hand of the Minister of Education for Ontario. The report, with appendices, amounts to nearly 1,000 pages, and is replete with useful information. It did not, however, give precisely the information I required, viz.: The total amount expended for education, directly and indirectly, including all universities, colleges, technical schools, etc., etc. I therefore wrote to the Minister requesting that he would send me, unofficially, and on an ordinary post card if he chose, an approximate estimate of the amount thus expended, including expenditure outside of that under the direct control of the Department of Education. He replied very courteously, but I could not help thinking there was a certain amount of grim humor underlying, when he sent me a copy of "Three years of progressive Legislation and Administration under the Educational Policy of the Whitney Government," stating that I would find in that all the information I required. The report of the Minister of Education, for 1908, has since come to hand. From it I find: As regards the first class, viz.: the native born:

The total population is 590,285.

The total enrolled (public, separate and kindergarten) 463,460, 78 per cent.

The average attendance (public, separate and kindergarten), 272,000, or 46 per cent. of the total.

The total enrolled in high school, 30,331, or about 5 per cent. of the total.

The average attendance in high school, 18,485, or less than 3 per cent. of the total school population.

(That the average attendance in high school, compared with that of the public school, is less than 7 per cent., or 1 to 14.)

One thing we must bear in mind is, that the conditions of society have changed since the days when the boy leaving school to enter upon industrial or commercial pursuits was *apprenticed*, under indentures making provision for his further education, and when he lived in the household and under the supervision of his master or employer.

I do not ignore what is being done by churches and individuals voluntarily—by schools of correspondence also, to assist those who realize their need of a better education and who have passed school age or are unable to avail themselves of day schools to improve themselves. But, the State has taken charge of secular education and imposes taxes upon the whole community for the purpose of enabling it to discharge the duty it has assumed.

The question is, are the youth—boys and girls, young men and women—as a whole, sharing equitably in the vast sums thus raised and expended annually for education in Ontario?

For elementary schools, according to the latest report, the annual expenditure (public and separate) is $7,556,179; for collegiate institutes and high schools, $1,213,679; for both, $8,769,876. It is difficult to ascertain the exact amount of capital invested in buildings and sites for primary schools, but an approximate estimate may be formed from the fact that taking the average of the quinquenial statements set forth in the latest report of expenditure from 1867 to 1902, the triennial statement up to 1905, and the statement of annual expenditure since, the amount is $20,954,003.

Most heartily do I endorse, so far as it goes, "The Educational Policy of the Whitney Government, as set forth in the Record of Three Years of Progressive Legislation and Administration" which the Minister of Education sent me in reply to my request for information as to the total amount spent, directly and indirectly, for education annually in Ontario; but I do not find much provision in it for meeting the needs of the class I have in view, or along the lines which in the question proposed I suggest as possible.

I know it may be said, that you can do little to educate those who do not desire to receive instruction. I am not suggesting the establishment of schools, and compulsory attendance upon them, beyond what is now provided by statute. Provision, however, might be made for more variety in methods of teaching, in time for instruction, and in subjects to be taught, even within the scope of the present legislation as regards compulsory attendance at school.

Much might be done by moral suasion, and reasonable encouragement and assistance given to those who desire to supplement the education they have received in our primary schools, and facilities afforded those who have not been able to avail themselves of the instruction given in such. Do we not all realize that there are hundreds of night schools open, and attended by thousands of our boys and girls, five or six nights in every week—with perhaps too little government supervision as to what is being taught, and by a most effective method of teaching—the moving picture and object lesson—presenting what? From the refined immorality of the Parisian *demi monde* to the prize fight. How many of them have you in Toronto?

In connection with night schools and evening classes the services of many of our trained teachers, who are doing such good work in our present public and high schools, might be employed. I certainly do not suggest that it should be without additional remuneration. There is, however, no need for confining the work of teaching to those following teaching as a profession. The services of specialists could be secured for imparting instruction on many subjects, though such specialists be not professional teachers; and the curriculum might include many things for which provision is not now made in our day schools, while on the other hand many subjects might be omitted.

As regards the number of foreign born for whose education provision must be made, many of whom can be reached only by night schools or evening classes, the last report of the Minister of the Interior shews: That the immigration to Canada for the twelve months ending 31st March, 1907, was 262,467, and from thirty-seven nationalities—twenty-two of which speak other than English. They are classified, 153,828 males (presumably adult), 56,192 females (adult?) and 51,729 children.

Of the total immigration the designation of 75,000 is for Ontario. And of the whole number of immigrants nearly 90,000 are set forth as *continental* and non-English speaking. How are they to be educated and fitted for citizenship? I am convinced that only by night schools and evening classes can many of them be reached.

Now what has hitherto been done in Ontario in the matter of providing such schools and classes? And what is being done elsewhere?

From the last report of the Minister of Education, page xv., the numbers of night schools for 1907-8 is given as twenty, and the total number of pupils enrolled 1,552, with average attendance of 470.

The representatives of the Toronto board can, perhaps, give us the latest statistics on this matter as regards the Queen City of Ontario. From the last report of the board to which I have had access I learn that the average for the first twenty-five years, since such schools were established, in 1880, is as follows: Number of teachers 23, number of pupils registered 1,100, average attendance 556, and average expenditure $3,437. This, compared with the Minister's report for the whole Province, does not indicate that much is being done elsewhere than in Toronto.

As to the question, what is being done elsewhere than in Ontario? When the subject of this paper had been assigned a place on the programme, I selected three neighboring States of the American Union as presenting most nearly the same features of the problem as enter into it in Ontario, viz.: New York, Pensylvannia and Wisconsin. Then, on the principle *ex uno disce omnes* I chose one city in each of these states and put myself into communication with the Superintendent of Public Schools for information.

From all of them I received most courteous replies and reports which I now submit for the information of this Association.

The superintendent in Rochester sends reports shewing that $2,354,000 are invested in sites and buildings for schools in the city—and that the best of these are thrown open for night schools and evening classes, "to meet the requirements of the state law which requires that certain pupils between the ages of fourteen and sixteen, who are not attending day school must be in attendance upon an evening school. To afford opportunity to the unemployed but ambitious men and women of limited educational equipment, who are unable to take advantage of the day school; and to provide instruction in English for the foreigners who come to us in great numbers."

The curriculum of studies is given, shewing great diversity of subjects, but giving prominence to the more practical, and, as in the other reports received, giving prominence to the teaching of the knowledge of civics and the history of the country required of American citizens.

Dr. M. G. Brumbaugh, Superintendent of Schools for Philadelphia, writes: "I beg to advise you that throughout Pennsylvania there is provision by law for the maintenance of evening schools for adults and foreigners. The entire expense, including janitors, light, heat, books, supplies, everything necessary to maintain the schools is borne by the Board of Public Education in the district where the school is. In Philadelphia we maintain both elementary and high schools in the evening; also trades-schools, and spend about $90,000 annually upon these schools. We consider them of great advantage, and I know of no part of our work that brings a better return to the city. I should certainly regard a system of education inadequate that did not make legal provision for the maintenance of such schools."

Mr. Edwin G. Cooley, Superintendent of schools for Chicago sends voluminous and most interesting reports, which are herewith submitted, shewing how liberally provision is made for the education of both classes—the native born and foreign.

Gentlemen, I thank you for the patience with which you have listened to this very inadequate presentation of the subject and I now leave the matter with you for such discussion of it as you may deem desirable.

HOW THE TEACHER AND TRUSTEE CAN SUPPLY MATERIAL FOR LOCAL HISTORY.

Lt. Col. J. E. Farewell.

John Richard Green in his preface to the short history of the English people, says,—

"It is history not of English kings or English conquests but of the *English People*"—I have preferred to pass lightly and briefly over the details of foreign wars and diplomacies. The personal adventures of kings and nobles, the pomp of courts or the intrigues of favorites, and to dwell at length on the incidents of that constitutional and intellectual and the social advance in which we read the *history of the nation itself*."

He shows clearly that "Drum and Trumpet History," the record of the butchery of men by their fellow men, plays but a small part in the real story of a nation.

McMaster in his history of the United States has followed along the lines pursued by Green. He says "In the course of his narrative "Much must be written of wars, conspiracies and rebellions, yet the *history of the people* shall be my chief theme, to describe their dress, their occupation, their amusements, the literary canons of the time, to note the change of manners and morals.

If the teacher would know the true history of the Motherland and of the great nation stretching from our own borders to the Gulf of Mexico, he would do well to study these works carefully. There are few works by clergymen which have been read by so many people as the Reverend Gilbert White's "Natural History and Antiquities of Selbourne"—the reason has been well described, the book is the simple *recording of valuable facts* as they were seen and learned without embellishment and without allowing the imagination to ramble and assume conclusions, the exactness of which it has not proved. White was one of those who mainly assisted or tempted persons *to observe. Studying, searching out and enquiring himself,* he incited others to engage in the like work.

If the teacher would know the history of the growth and development of this great Province, he must follow the same course which these great authors pursued so successfully. Dr. Canniff's "Settlement of Upper Canada" and Duncan's "Story of the Canadian people" are most useful contributions towards a history of Canada, but the true story of our own people has not yet been written. The material has not yet been gathered for one.

The Dominion and Ontario Governments have each a Department for collecting this information. The able and most zealous men in charge of these departments need the assistance of the teachers and school trustees of the Province and Dominion.

The early settlement of each township and county, the struggles and privations of the people in hewing out a home in a wilderness, in clearing the forest, in building bridges and opening up communication with the market and with each other,—in building the mills and factories, in draining the swamps and marshes and making "the wilderness blossom as the rose," are matters of thrilling interest to the descendants of the pioneers, and the new comers, "the stranger within our gates."

That this is so, witness the spread of the old boys and old girls re-unions, the success of anniversaries of the settlement of townships and towns, notice with what interest scraps of township and county history are read and passed from hand to hand, from newspaper to newspaper—not only in the county to which they relate but in adjoining counties,—and published, not only in the county press but in the city dailies.

The Prophet Isaiah asks, "Shall a Nation be born at once" Nation building was a slow business in his time. With civilization developed as we have it much better time can be made than was possible in his days,—still it is yet a slow process. The history of the Nation is the *history of the people* who make up the Nation, the history of their struggles, "with savage beasts and men more wild," the conflicts with and triumph over physical obstacles; the courage, perseverance, industry and self-denial of the pioneers, the story of their divisions and party differences, and of their public spirit and united efforts.

The teacher who would do his whole duty ought to make himself or herself familiar with the history of the settlement of his school section, and of the township and the county as far as possible. He should be familiar with the history of "Great sorrows and trials bravely borne," by the pioneers, of their public spirit and patriotism, of their heroism and unselfish work in sustaining and helping the weak and unfortunate settlers. He should learn of the success which came to the industrious, temperate and honest; and the misfortunes which befel the indolent, the intemperate and dishonest men who lived there in the early days. As the pioneers are fast passing away and the sources of such information are daily decreasing it is very important that there should be some record made as to the nativity and modes of life of the pioneers in each county and the circumstances under which the county emerged from a wilderness to a well settled County. For example, who was the first settler, where did the others come from? Did they come in separate families or did they come in colonies like the Scotch in Esquesing, the Highlanders of Thorah, the English of "English Corners" in Whitby, the Irish under Peter Robinson, of Peterborough, or the Dutch of Markham under Berzy? Were any of them U. E. Loyalists, or land hunting American rebels? In what kind of houses did they live? Were the first ones covered by halves of hollow logs, bark, slabs, boards or shingles. If lumber was used in their construction, where was it got? Did the settler use the whip saw as well as the cross cut saw? How far had he to travel to reach the nearest saw mill or a grist mill, or was the grist mill so far away that they were compelled to use the hominy block and plumper for breaking up the corn.

If the first settlers were of one nationality, did it come to pass that they, in time lost their land and were replaced by people of another country.

What kind of food did they eat? What kinds of birds, game and fish contributed to the supply? And where was food, other than that furnished by game and fish obtained? When was the last of the deer and large flocks of wild pigeons the last bear or last wolf seen in the section or township? What kind of dishes and spoons were used by the people?

How were the people clothed? Of what material were their clothes made, hemp, flax, wool or the skins of wild animals? Did they grow the materials and weave their own cloth? Did they have tailor and shoemaker shops, or did the tailors and shoemakers go round to board in the houses and do their work? Who established the first of such shops, blacksmith shops and carpenter shops and when? Did they have coopers in those days? If they lived on the shores of the great lakes, did the people do any smuggling? How were their houses lighted, were "candle dippings" one of their amusements?

When and by whom was the first store established in the neighborhood? What articles were sold in the store? What was the price of staple articles and what kind of produce did the store keeper buy from the settlers. Furs, black salts, maple sugar (as late as the early fifties over a quarter million pounds of maple sugar was made in the County of Ontario).

When and where was the first school established? (Frenchman's Bay, in 1670) Fenelon and Trouvé, Sulpcian missionaries established not only the first in the County of Ontario but in the Province of Ontario.

How was the teacher paid? Did he provide for his own board or did he "run the deestrict?" Was he "a man to all the township dear, passing rich at forty pounds a year," was he the best or or worst of teachers. Were his successors as useful to the people as the first teacher was, taking the advantages of the teacher and the circumtances of the people into consideration. What kind of a school house did he teach in? How was it heated? Did he have an upturned potash kettle for a stove? Did he require a certificate? if so where did he get it? What school books were in use? When did the first map, blackboard or globe make its appearance? Did they have spelling school, writing and debating schools in those days? Were there geography schools? What books were read by the people who were not in schools—what newspapers made their way into the settlements? Were there singing and dancing schools?

When and where was the first church built? Did they have protracted meetings and camp meetings? Was the bass viol, flute and violin used in the service? or were they considered ungodly—

Did the settlement receive visits from the circuit rider or wandering preachers? How were the people warned that there would be preaching at the school house at early candlelight, and which of them were to bring candles? When and Where was the first Post Office established in the township? How often were the mails carried to it and how? Did they have a mail service independent of the post office department, such as the mail service established by Colonel Cameron between Beaverton and the Kingston Road at Whitby? Did the Postmaster object when a new Post Office was established in an adjoining township on the ground that he could do all the work?

When did the first Doctor come into the Township? Or so near that he might be called in an emergency? What kinds of diseases were most prevalent? Did the cholera afflict the people? Did the immigrants bring ship fever? Pat Ginnehan's narrow escape from having his legs cut off, when he was supposed to be dead and a long enough box could not be found for him, while he was privately enjoying his existence. Were the people of the settlement parched with fevers in winter and chilled with ague in the summer. What has become of the fever and ague anyway? Was the putting of live frogs inside the shirts of the patients, the popular remedy? Why is this disease now almost unknown? Did the Dr. use calomel? Did he blister the people, was he an alopath or a homœopath, a Thompsonian, a hydropath or an eclectic? Did the Doctor bleed the patients except by heavy bills? Did he ever attend the schools and parade the scholars for examination as to whether Sarcoptes hominis was embedded in their integrements? Was this infectious disease caused by the use of too much Indian meal? Was the result temporary inconvenience or was it of the seven years variety?

Amongst other matters upon which information might be obtained, are the following:—When was the first Agricultural Society organized in the township? Who, amongst the farmers, were celebrated as breeders of farm stock or as growers of fruit? Who of them have received prizes in national and international exhibitions for farm products, showing that Canada raises the best that is raised.

Were there any distilleries, breweries or taverns in those early days? Has the number increased or decreased? What was the price of whiskey then, and was its use beneficial to the community?

When was the Court of Requests established? Who were the first Commissioners? Who were the first Justices of the Peace and Coroners in the settlement or near it? When did the first lawyer arrive in the neighbourhood to protect, bless and benefit the whole community? Who was he? Where did people have to go to register the deeds of their land? When they wished to commit matrimony, were the banns published, if not where did they go to get marriage licenses? Were there any charavaris after the wedding, and did any homocides result therefrom?

Who were the first town wardens? What were their duties and when did they disappear? When were Municipal Councillors first elected and who were first chosen by the people as such? Who have represented the people in Parliament? Which of the settlers or descendants of settlers have made their mark as professional men or in manufacturing or in commerce?

Was the country well timbered? What became of the forests? Did the settlers derive any profit from their destruction. Did the people make black salts, pearl and potash? Were rafting and lumbering carried on? Did the removal of the forests cause the drying up and reduction in volume of the streams and rendering them useless for milling and manufacturing? Have any of the lands which were once cultivated, become almost useless for farming, and if so, what effect had this on the habits and morals of the people who in later years have occupied them?

(See report on the re-foresting of Ontario lands). The sand ridges in Uxbridge are good examples of the deterioration of land and people.

Was the township visited by any hurricanes or tornadoes? Were they attended with fatal results? Did they hasten or hinder the settlement?

What are the principal geological features of the County? The character of the soil, does it contain any lakes without any inlets or outlets? What mineral springs, ores, deposits of marl and other building material? (McGowan's Salt Springs in Whitby Township yielded 2½ bushels per day).

Another interesting matter to be noted is whether any of the early settlers or their descendants rendered military service in the war in 1812-15; in the rebellion of '37, the Fenian Raid '66-70, in North West Rebellion or in South Africa? Did any military engagements take place in the township or county?

Were there any Indian Settlements in the County and what efforts were made to educate and christianize them? Are there any Indian mounds and burial places in the township or County?

These are samples of many matters of interest which should be recorded in a concise manner and preserved in the school section in the township and in the county, and if some such general system for gathering and recording such items of information were pursued those in charge of the government archives could collect ample material for writing the history of the growth and development of the people and their advance in material wealth, education and morals.

I brought this matter before the Teachers' Association of the County of Ontario and before the County Council and have noticed that a number of newspapers in this and adjoining counties have approved of the suggestions which I am offering. Some of the papers have stated that they would be pleased to publish from time to time the records of school sections so made. I have no doubt that county councils would willingly pay for type writing such a number of copies of the records of each section as would secure their preservation in the school section, township, county, provincial and dominion archives.

The preparation of such a record should be aided by the trustees of public schools as far as possible. It would be beneficial to the teacher in furnishing useful occupation for leisure hours and affording the teacher practice in that kind of composition and would supply the teacher with a fund of information, that might be judiciously used in teaching and inducing the pupils to acquire habits of observation and research.

RHODES SCHOLARSHIPS.

JOHN BALL DOW, B.A., WHITBY.

In Tennyson's drama "Harold," there is to be found the death vision of Edward the Confessor. It is styled the "Vision of the Green Tree," and is one of those passages in which Tennyson himself thought he had been successful. It runs in part as follows:

> "Then a great Angel passed along the highest
> Crying "the doom of England" and at once
> He stood beside me, in his grasp a sword
> Of lightnings, wherewithal he cleft the tree
> From off the bearing trunk, and hurl'd it from him
> Three fields away, and then he dash'd and drench'd
> He dyed, he soaked the trunk with human blood,
> And brought the sundered tree again, and set it
> Straight on the trunk, that thus baptized in blood
> Grew ever high and higher, beyond my seeing,
> And shot out sidelong boughs across the deep
> That drop't themselves, and rooted in far isles
> Beyond my seeing."

Edward's vision occurred on the eve of the disastrous battle of Hastings, or Senlac, and in the light of subsequent history its interpretation is not difficult. The tree is undoubtedly the Anglo-Saxon race, the sword of lightnings is that of William the Norman Conqueror; the cleaving of the tree from off the bearing trunk represents the overthrow of Harold and the Anglo-Saxon dynasty —three fields away may well be taken to mean the time (about three centuries) that was to elapse before the blending of Norman, Saxon and Dane into a composite race, known as English, should be completed, and the parent trunk, by the process of drenching, dying and soaking it with human blood, should be prepared to have the severed tree again set straight upon it, and Anglo-Saxon ideals should again become dominant in the national life and development. The growth of the reunited tree "high and higher beyond his seeing," probably signifies the union and consolidation of Wales, Scotland and Ireland under one crown and parliament, while the side-long boughs which "shot out across the deep" "drop't themselves and rooted in far isles" beyond his seeing, pictures with poetic truth and beauty the broadening out of the United Kingdom, by the acquisition of its Dominions beyond the Seas, into the British Empire of to-day.

As the death vision of Edward foreshadowed, the tragic days of the Norman Conquest were, in truth, but the prelude of a new birth for England, and the centuries which have since elapsed have been centuries of solid growth, socially, morally, and politically; centuries of "ever broadening commerce, of ever brightening science and ever widening Empire."

It has been said that history is but a record of the lives and deeds of great men of the past. If so, among the names of the great men who have borne a conspicuous part in the upbuilding of the British Empire, that of Cecil John Rhodes is entitled to an honored place. While he lived, Rhodes was not only severely criticised, but grossly slandered. His ambitions, his motives and his methods were all subjected to the most virulent attacks, but in the face of all these, his attitude, as expressed by himself, was "I have my Will here, and when they abuse me I think of it, and I know they will read it after I am gone and will do me justice when I am dead." In the case of Rhodes, as in that of his great Canadian contemporary, Sir John A. Macdonald, it is now generally conceded that "in the main his ambition was entirely one for the British Empire, its good and its greatness."

Kipling describes Rhodes as a

"Dreamer devout, by vision led
Beyond our guess or reach
The travail of his spirit bred
Cities in place of speech."

South Africa was the field of his activities, and since his death, through the courageous policy of the present British Administration in granting them self government, one of the ambitions which

Rhodes cherished has been realized in the recent union of the South African States, along the paths which he himself prepared and at a much earlier date than he could have thought possible, in view of the bitter war which raged during the closing years of his life.

At the unveiling of a tablet commemorative of the generous benefactions which Rhodes bequeathed to the University of Oxford, Lord Rosebery, the speaker of the occasion, with that felicity of expression for which he is celebrated, said of him "In South Africa, that region of perplexity which at any rate will remain for all time a monument of British generosity, and I hope of British wisdom, the name of Rhodes will always be preserved, and in the British Empire for which he worked with such sublimity of conception, such broad capacity and such unresting energy, he must long remain a figure and a force."

In concluding this altogether inadequate appreciation of Rhodes and his work, especially in relation to their effect upon the destiny of South Africa, I cannot do so more fittingly than by quoting Kipling's lines:

"Living he was the land, and dead
His soul shall be her soul."

Great as was the work which Rhodes accomplished in his comparatively short life, it was followed after his death by a plan more ambitious, far reaching and lasting in its character, which he devised and set forth in detail in his will, and which is known as the system of "Rhodes Scholarships." Having amassed a colossal fortune, Rhodes had long before his death determined to devote the greater part of his wealth towards keeping alive a love and respect for British learning, ideals and traditions, wherever the English language is spoken, in the belief that in this way a better understanding between the English speaking nations might be brought about and might be of service in securing the maintenance of peace and goodwill throughout the whole world. Under the terms of the original will, these scholarships were confined to the British Dominions over seas and the United States of America, but by a Codicil Germany was also included. The Codicil is so illuminating that I quote it in full: "I note the German Emperor has made instruction in English compulsory in German schools. I leave five yearly scholarships at Oxford of £250 per annum to students of German birth, the scholars to be nominated by the German Emperor for the time being. Each scholarship to continue for three years so that each year after the first three there will be fifteen scholars. *The object is that an understanding between the three Great Powers will render war impossible and educational relations make the strongest tie.*"

The scholarships are assigned as follows: 24 to South Africa, Canada 6, Australia and New Zealand 21, Newfoundland 3, West Indies 6, United States, 2 from each State or Territory, Germany 15, and except in the case of Germany, they are of the annual value of £300, are tenable for three years and require attendance in residence at one of the Colleges of Oxford. They amount in the aggregate to over a quarter of a million dollars annually.

In Ontario the selection of scholars is given to Toronto, Queen's, McMaster and Ottawa Universities, according to a rotation fixed by the trustees. The conditions upon which the scholarships are granted are admirably thought out and devised. Some of the more important of these are (1) Candidates must have passed their nineteenth but not their twenty-fifth birthday, and those from Canada must be British subjects, unmarried, and have reached at least the end of the sophomore year at some recognized degree granting university or college of Canada.

Rhodes, in his will, lays down clearly the lines upon which scholars are to be chosen. I again quote the language of the testator: "My desire being that the students who shall be elected to the scholarships shall not be merely bookworms, I direct that in the election of a student to a scholarship, regard shall be had to (i) his literary and scholastic attainments, (ii) his fondness of and success in manly outdoor sports, such as cricket, football and the like, (ii) his qualities of manhood, truth, devotion to duty, sympathy for the protection of the weak, kindliness, unselfishness and fellowship, and (iv) his exhibition during school days of moral force and character and of instincts to lead and to take an interest in his schoolmates, for those latter attributes will be likely, in after life, to guide him to esteem the performance of public duties as his highest aim." He also suggests the values to be assigned to the several heads and recommends that (ii) and (iii) should be decided in any school or college by the votes of fellow students, and (iv) by the head of the school or college.

The ideal scholar outlined in the foregoing is one that ought to satisfy the most exacting educationist. It is an inspiring ideal and is one that those in charge of education in Ontario might well keep before the eyes of our young men as a pattern to copy. There is no entrance here for the mere bookworm or for the Sybaritic youth who is willing to desert the campus for the smiles of some fair Lydia. He must, as a recent writer in the "Standard of Empire" puts it, be "neither perfect prig nor muddied oaf," but he must be mentally, physically, socially and morally an eminently "fit" young man, a "lad o' pairts," who has shown himself to possess the qualities of leadership.

The latest report issued by the Rhodes Trust shews the number of scholars in residence at Oxford for the Academic year 1908-9 to be 178, a gratifying result that does honor to the able and energetic labors of our esteemed Canadian educationist, George R. Parkin, C.M.G., under whose guidance the trustees have placed the administration of the Trust. There are besides, eleven ex-scholars in residence engaged in teaching research or special study for examinations, making a total of 189. The report for the Academic year 1907-8 shews that of the whole number of scholars in residence at Oxford, 66 were from Colonies of the Empire, 11 from Germany, and 79 from the United States of America.

My purpose in presenting the matter to this Department is to make the value of these scholarships more widely known and understood among the teachers and trustees of Ontario. At present, such knowledge is almost wholly confined to university circles, and even in the official publication of Oxford, owing to its extremely conservative practices, it is difficult to discover anything about them.

My suggestion is that the Department of Education be respectfully requested to consider the advisability of making the Rhodes scholarships more widely known to the teachers and scholars throughout the Province. A short, concise statement might, at a small cost, be printed and issued to the principals of the high schools for framing and placing in the reading or common rooms of their schools. In this way, a noble ideal, likely to inspire in them worthy ambitions, and of great value in shaping their lives would be continuously presented to the scholars.

In endeavoring to estimate the ultimate results of the system there is room for optimism. A recent article in the "Standard of

Empire'' declares that the enlightened patriotism and far sighted wisdom of Cecil Rhodes has made Oxford "the true educational centre of the British race, drawing yearly within her gates selected students from the four corners of the earth to receive the hallmark of an Oxford training. These young men go back to their own people to disseminate a true knowledge of the heart of the Empire, to plant and to cultivate in new soil all that they have found to be best in English laws and customs and modes of thought, so that the members of the British family shall forever remain joined together by unbreakable bonds of common, social, political and intellectual ideals,''

Dr. Parkin concludes a letter I received from him on the subject of these scholarships a few weeks ago, in these words: "They are an immense boon to the young men of Canada. When half a century has rolled by, people will begin to understand something of what they mean. In my own judgment, I am convinced that Rhodes was building even better than he knew when he devised his will.''

THE BENEFITS DERIVED FROM PHYSICAL TRAINING AND MEDICAL INSPECTION.

Dr. J. E. Hett, Berlin.

Recently in an address delivered by Inspector Hughes, he stated "In the past we have had wrong views as regards education in simply looking upon education as pertaining to books. If I had a boy who had the choice of either arithmetic or manual training, I would choose manual training for him instead of arithmetic for by that education he could become a good mechanic and could earn his living, whereas by arithmetic he could not.'' That is getting down to common sense and it is through common sense that we should look upon the importance of the questions under the title of this paper.

Medical inspection of schools is becoming a live question. Yesterday afternoon in the Hygiene and Inspectors' section this subject was admirably dealt with by Mr. C. B. Edwards and Drs. McPhedran and Roberts. It is not the purposes of this paper to go into details but to outline briefly some of the discoveries in a few localities where medical inspection has been introduced.

In every locality the statistics have been very striking. Here is a sample. In the New York schools the ophthalmic inspectors found 33 1-3 per cent. of the children with defects of vision of sufficient importance to interfere with their studies. The effects of eye strain not only interfere with the studies, for the general health may be affected and very often is causing headaches, disorders of the stomach, disorders of menstruation, insomnia and nervousness, and even scoliosis. It is an error to look upon the effects of eye strain as being trivial. Parents in ninety-nine cases out of a hundred are too ignorant to realize the great importance of having the defects of their children's vision corrected by glasses—attention to the eyes of the children in the public schools would protect them against the increasing defects in the high schools. Dr. Kerr from his observations in London, found that ninety-five per cent. of children between six and six and one-half years of age have normal visual acuity. A steady increase in myopia is noted in the ascending grades. Dr. H. Cohn, after testing ten thousand pupils found twenty-two per cent. with myopia in the youngest classes and fifty-eight per cent. in the higher; many pupils are found in the schools who have defective hearing in either one or both ears. Ninety per cent. of these cases are curable in the early stages but if neglected many will become partial or completely deaf. Many cases of impaired health are directly due to the defects caused by hypertrophied tonsils and adenoids. Besides causing deafness, we should not forget that the tonsils are often the portals of acute rheumatism, endorcarditis, otitis media with mastoiditis and tuberculosis.

Recently a case of tubercular gland in the neck came to my notice. The eleven year old son of one of our principals had enlarged tonsils and adenoids for a few years and the father did not realize their injurious effects. Six months ago a gland became enlarged in the neck which gradually enlarged to almost the size of an egg. It was removed by an operation and it extended in very deeply and it was necessary to lay bare the common carotid artery and jugular vein. The gland was a mass of tubercular tissue and there is no doubt in my mind that if the adenoids and hypertrophied tonsils had been removed in time the serious operation and conditions would have been avoided. Children, who have enlarged tonsils and adenoids, take the infectious diseases as scarlet fever and diphtheria and whooping cough more seriously. Mouth breathing which is always present in these conditions makes the appearances of the child stupid and it is very much retarded in its studies. The lungs cannot be properly expanded. The nostrils are not properly developed and the chest becomes narrow and remains undeveloped.

Medical inspection has been carried on for some years in European schools. Japan introduced it in 1893 and in 1906 had, 8,424 inspectors while the United States had but 600. New York, however, has been alive in this matter and they have the most comprehensive system in the world. Here is the statement of the results from March 27th, 1905 to March 31st, 1906. It is exceedingly interesting and instructive.

Number of Examinations made 79,065.

Poor nutrition	4,537
Enlarged ant cervical glands	22,493
Enlarged post	4,989
Chorea	4,989
Cardiac disease	1,332
Pulmonary diseases	885
Skin disease	1,574
Deformity of spine	674
Deformity of chest	500
Deformity of extremities	663
Defective vision	34,534
Defective hearing	1,633
Defective nasal breathing	8,974
Defective teeth	29,386
Defective palate	936
Hypertrophied tonsils	13,411
Post nasal growths	7,375
Defective mentality	1,477
Number where treatment was necessary.	50,913

This report shows that 63 per cent. of all the children in the New York schools required medical treatment. It is almost incredulous. These statements should make us pause and think.

It is impossible for us to conceive the great benefits that those children must have derived and the great benefit which the country receives by having healthy instead of defective citizens, later in life. These figures tell us that many of the children who are stupid and backward in school are so from no fault of their own but due to the inherited or acquired physical weakness with which they are encumbered. Experiences in a very large percentage of cases treated showed, that when these defects were corrected, children became lively and normal. In Boston an examination of those who played truancy, they discovered 95 per cent. physically defective.

It is very strange, indeed, that progress in school life in this respect has been so slow and that communities are but awakening out of their dormant conditions. We should remember that schools in their fullest sense stand for far more than for cramming a child's head full of book knowledge. Can you realize and imagine what a blessing it will be for humanity and the race in years to come when these conditions and abnormal conditions are corrected in early youth?

I tell you it will be a blessing to many families. There will be less suffering and more happiness, instead of having many deformed persons in adult life they will be straight and active and the whole race will be wonderfully improved. I am absolutely certain that it will mean a great saving to the whole county for there will be less crime—less vice, less immorality, less drunkenness, less suicide and less insanity and far less sickness.

Physical training goes hand in hand with medical inspection. The results obtained from physical training without medical inspection will fall short as you can readily understand. Many children could not properly take exercise especially if they were suffering with obstructions in the nose or throat. Dr. Howard A. Kelly, one of the greatest surgeons in the world states "Careful supervised physical training is one of the most important and rational factors in the life of the school girl. This fact is easily demonstrated by a comparative study of girls who have every favourable opportunity for spontaneous growth and those who have had the advantages of systematic training in a modern gymnasium. Indeed the physical differences between girls of sixteen and seventeen who have had well drilled gymnasium work and those who have not had it are so marked that an experienced examiner has little difficulty in separating the one class from the other by simple inspection. No one with medical training who has had the opportunity of examining large numbers of healthy girls in preparatory schools and observing the effects of good gymnasium work upon them can fail to become an enthusiastic advocate of systematic educational gymnastics as a necessary part of a girls education. Athletic fields for girls are as necessary as for boys. Playgrounds should be set aside for girls. They should receive instructions in swimming. School swimming pools and public swimming baths afford facilities for such instruction, which are easily popularized. The habit of taking exercise in the open air firmly fixed on the girl makes it a necessity for her when her formal education is completed and this is of inestimable value in maintaining and promoting health in after life." I have found a very large number of girls who have curvature of the spine. These girls grow up and in adult life one shoulder is lower than the other and one hip is more prominent than the other. I discovered a large number of such girls who were being given all the polishing in education possible, except physical culture, and it is really disgusting to see these girls spending hours a day at practising on the piano and not paying any attention to physical culture. It is not the fault of the girls and the parents do not understand the value of exercise. Our systems of education are at fault. The instructor of physical culture in the collegiate institute in Berlin informed me that fifty per cent. of the pupils cannot support their own weight before entering the classes, and that the boys are dopy, stiff and lazy. Having taken up gymnasium work myself, I know what it means to a person who practices it—No time is lost but gained. I feel positive that pupils who takes physical exercise can do their study and their work much more rapidly and their health will be very much improved.

Of late years in England they have been paying attention to physical culture in schools. The statistics of the British army records showed that from 1893 to 1902, 679,703 recruits were medically examined and of this number 34.6 per cent. were rejected as unfit for service and .9 per cent. broke down within three months after enlistment, while 2.1 percent. were discharged as invalids before completing two year of service and as

Sir F. Maurice, says, as 60 per cent. are rejected of those who offer themselves to the recruiting officers the number turned away must be appalingly large. These statistics so alarmed many of the leading men of England that the national league for Physical education was formed under the presidency of Sir Lauder Brunton and amongst other proposals made by him is the reduction of each hour of study to forty-five minutes, the remaining fifteen or twenty minutes to be devoted to play and physical drill.

Many of our Canadian people boast about our physical race, but I cannot see anything to boast about. We are neglecting physical culture and cadet drill. Germany, Switzerland and Japan throw us into the shade. Our national sports are on a very low plane to what they might be. True, there are some splendid athletes but what about the masses? If physical culture were instructed in school every child would then be better developed and we could have national sports in the gymnasium and cadet plan in every town and village on public holidays, instead of a few rival games in hockey or baseball and idleness of the masses. We spend a lot of money on music, manual training and domestic science but why should physical culture be neglected? I do not agree at all at professionalism in sport. It is more of a curse than a blessing. I agree entirely with President Falconer, In a recent interview in the *Toronto World*, he stated "We endeavour to keep away from professionalism in sport. I think that larger numbers of the students should be actually playing and undergoing more athletic exercise. I hope the time will come when every student will have a physical examination by a physical director and receive advice as to what exercise and open air training to take. They should also be proficient in swimming. A healthy, sane physical development aims at laying the basis for a complete manhood. Recreation is a word in what is aimed at in our athletics. The old Greek ideal of a healthy body, thoroughly well developed in all its parts and not over developed in any as the organ of high moral and intellectual character and manhood is our aims."

If physical culture is good for the university student it is good for the student in the public schools. There is the proper place to begin when the body is in the process of growth and development.

If medical inspection and physical culture are introduced in school life, it will open up an avenue for the proper instruction of social purity along such lines. Let us as Trustees look at the question seriously. Let us do more for the children than has been done.

A very large percentage of the children that are born these days inherit not only the weaknesses and imperfections of their parents and ancestors but they are stamped with the terrible curse of unwelcomeness before they are born.

Let us do our utmost to educate the children properly so they will become noble men and women.

THE STATE AND ITS PRIMARY SCHOOLS, WITH SOME PRESENT PROBLEMS.

T. A. Reid, Principal Public Schools, Owen Sound.

Mr. President and members of the Trustee Department of the Ontario Educational Association: When requested to take up some topic before your Department, representing as it does the select from that great body of men upon whom the state has shouldered the chief responsibility of its greatest—its highest duty—the education of its children and young men and women, in the primary and secondary schools, I regarded that request as an honor, a responsibility, a privilege. Your special committee, appointed a year ago to bring to the attention of the Minister of Education the result of some of your deliberations, was introduced to the public school committee of the Advisory Council, discussed certain matters with us and sought our co-operation. I embraced the opportunity that then offered, asking for the co-operation of the members of your committee, and through them, of this Department, on some questions of present moment, that had engaged the attention of some members of the Council, particularly those who represented the cause of primary education. As a result of my rashness on that occasion I am before you to-day, to present some questions—some problems then briefly stated.

Representing the public school teachers of the Province, I want to express the appreciation of that large body generally, for the manner in which the school trustees and the school boards of Ontario discharge their trust; for the help they have given the profession, and the cause of education. Through your influence on the whole people and on the government and legislature of the Province, and not only in your immediate spheres of influence, but through this important Department of Ontaria's Educational Parliament, excellent enactments and amendments to enactments, in school law have been made. Let me entertain the hope that some remedial legislation will be the outcome of your findings today on matters which I am to introduce. . . . . .

The common proposition, self preservation is the first law of life, accepted literally, can be disputed, and I think successfully refuted. It is not true of animal or insect life. The wasp and the bee, for example, labor for the preservation of the species, or to be exact, their own colony or state; the wild mother of the woods or jungle protects her young at the sacrifice of her life; and the preservation of the race is instinctive in man. When the state is in danger from an armed enemy, every true hearted man, every lover of home and country, counts his own life nothing if by its sacrifice he can aid in the preservation of the state. It was thus in ancient Rome. It has been characteristic of the British born through their great and progressive history. It is true of modern Japan. In the wasp colony each individual worker from the hour it emerges from its cell in which it has metamorphosed from the grub state to the perfect mentral, gives its attention to the brood only a few weeks younger than itself—the whole concern of the colony is for the young. Among civilized humans the nurturing process is the work of the home, but children of men have not instinctive knowledge of life and its complex activities, nor have they one atom of the acquisitions or knowledge of their progenitors. The young of the wasp in the first hour of its emergence from its cell has knowledge equal to that of the best of its race. It can get its own food, minister to the wants of others, manufacture paper, begin work as a builder, or construct its marvellous cell. The child, I have said, comes into life without prepared ideas, but he has wonderful possibilities.

A cry has gone up from more than one or two nations, a cry of anxiety and alarm at a falling birth-rate. Now, whatever may be the attitude towards personal responsibility in the matter, all patriotic people want children in other homes, all perhaps but those would-be child annihilators with flats to let. A state without children, in less than half a generation would lose every incentive to self preservation, in less than a generation it would lose the power and would speedily go down to extinction and oblivion. All right thinking persons will admit that the home that gives as their contribution to the state five or six children, healthy in body and sound in mind—children that can be developed into useful citizens, does the state a great service. That home adds greatly to the value of its gift if the children have no hereditary taint, mental or moral, and if during the impressionable first few years of their lives they were under good home influence and guidance.

It is fortunate that so many educating influences are about the child, and that heredity has implanted the disposition to activity of body and mind, and implanted desires that result in learning and acquiring. Although in the first five years of its life the child learns more than he does in any after five years, and his development is relatively much greater than his learning, yet if development were arrested in his fifth or sixth year, at the age of even fourteen such a child would be ranked as an imbecile. The life of the average person during the first four or five years is almost wholly a blank. Those persons who were once the most precocious children can in later life catch but faint glimpses of themselves in those dim fading far off first five years, but still it is the development of those years that make all after acquisitions possible.

The home that contributes to the state its five or six children has a duty and a responsibility to them which never ceases until they attain their majority. Does the state owe a duty to those children, to itself in connection with the gift of those children? They cannot become intelligent and useful citizens without education, without training, education and training that the average home could not possibly give. The civilized nations of the world have answered this question in the affirmative, in laws protecting the child, in laws that aim at saving him from ignorance, and in efforts that have been made at great national cost to prepare him for complete living. Only recently have they been recognizing the full extent of their duty towards the education of the child. We can train his mind, teach him to read, to think, to be an original intellectual worker, but may leave him without manual skill and ignorant of any craft by which he can make the use of his intelligence to contribute his quota towards his own needs and the needs of the nation. . . . .

Though England was late in following the lead of other nations in the full recognition of the duty of the state towards its children, her colonies on this side the Atlantic were not followers but leaders.

Massachusetts in 1647 A.D. adopted a compulsory education Act, and with no precedent in the world's history, aimed at the universal education of its people by the agency of free schools as a civil institution. Twenty years later Connecticut followed the lead of the former state with a wider educational scheme, that embraced the idea of our modern technical school in these words: "And further, that all parents and masters do bring up their children apprentices to some honest, lawful calling, labor, and employment, either in husbandry or in some other trade, profitable for themselves and the commonwealth." Full provision was made for making the system effective in its entirety. Children might be taken from parents, who failed in their duty to them and to the state, and placed with other masters to remain under their charge until they have attained the majority age.

Early in the history of this young English nation when it started on its independent career, this fundamental declaration was made: "Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." This has proved no mere sentiment; vast tracts of land were set apart in each new state as it was formed, for the support of primary education, forming in this way permanent funds, altogether over eighty million acres, a territory greater than that of Great Britain and Ireland, and more than half that of France, about eighty per cent. of which went to permanent elementary school funds. In addition, Congress has distributed a percentage from the sales of lands to the various states and for the greater part, sums from this source went to augment the permanent educational funds. Twenty years ago the total income (interest on the funds) aggregated about five per cent. of the gross expenditure of the whole country for education. But the funds from this source is but a small part of what some states contribute. For example, Pennsylvania, which 250 years ago left education to charity, last year contributed to the cost of primary education $7,500,000, or about half the salary bill of the public school teachers and about one-fourth of the gross expenditure. The tendency in the States of the Confederation to the South is from local responsibility to state responsibility, and an increased contribution from the general funds of the whole people. Locally, in rural communities the township or school district which may be larger than the township, shares the cost of the schools therein, in common.

There can be no question that since the education of the children is a state duty, a benefit to the whole state quite as much as is the proper defence of the state, the larger the proportion of the cost from the general funds of the whole people, the more equitable will be the proportion falling upon the separate communities or municipalities. Should the state impose on a community the education of its children, as ours has done practically all along, without rendering assistance, or without consideration of the ability of that community? To illustrate, Walkerville, in the western part of the Province is relatively its wealthiest urban municipality; Rockland,, in the east, one of the poorest. To meet the requirements of the school law in providing for the education of the children within its borders, Walkerville last year had a school rate of two and a half mills, the lowest urban school rate in Ontario; Rockland's rate was not 5 mills nor 10 mills, but 44 mills, the highest urban school rate in the Province. If the share of the whole Province was about half the cost of education, Walkerville's contribution to education must of necessity be nearer the average, and Rockland would find her rate greatly reduced. These are extreme cases so far as rate is concerned, but there are others, all over the Province. There are centres with total assessment averaging $30,000 to $60,000 per teacher or school, and other centres where assessment is $250,000 and $300,000 per teacher or school; some of which require one teacher or school to each 125 of the population, others which require one for each 350 of the population.

Ontario, until two years ago, was far behind every other province in the relative proportion borne by the state, while the contribution has been largely increased to rural schools, as was their due; it has not been correspondingly increased to urban schools, the distinction, judged by the conditions, stands, so far as I know, without a parallel. Allow me first to show what the other provinces are doing as their share for the education of the children. These are figures for comparison:

	Grant per pupil	or per teacher.
Nova Scotia	$4 00	$150 00
Prince Edward Island	6 30	220 00
New Brunswick	2 80	100 00
Manitoba	3 35	93 00
Saskatchewan	6 07	185 00
British Columbia	12 40	515 00
Ontario for urban schools (1907).	59	27 00

How much should the total grant to primary education be? My answer is, that it should now be $1,000,000 per annum, and this would be about one-sixth the entire expenditure, one-eighth, or twelve and one-half per cent., would make it about double the present grant to rural schools.

What share should urban schools receive?

If the population basis was a fair basis of apportionment—urban share would exceed rural share. If the average basis is a reasonable method, urban share would be 107 per cent. of rural grant.

If number of schools or teachers was made the basis then the urban schools would receive about 67 per cent. of rural schools' grant. Just here it is worth noticing that with a far greater number of teachers, relatively, to the whole number of pupils, still, the urban average cost per pupil is much greater than that of the rural average cost. Then, assessment or ability to pay the piper should certainly be considered, and here the figures are in favor of urban municipalities; for despite the fact that the rural assessments are far from being as close to values as are urban assessments, and the further fact that a large percentage of the rural wealth is not assessed at all, the urban assessment, the wealth for the greater population is less than the rural. Here are comparisons in points as indicated.

The figures go to show that any statement to the effect that urban municipalities are the centres of wealth in this province are entirely at variance with the facts—even judged by assessment values, which beyond all question greatly favor rural communities. The towns and villages of the province have just half the rural population and only thirty per cent. of the rural assessment, the average assessment being $356 per head, while the average is $564, with not a few above $800 per head.

—	Rural Taxes Per hd.	Mills on $	Ass'nt Per hd	Urban Taxes Per hd.	Mills on $	Ass'nt Per hd.	Cities Taxes Per hd.	Mills on $	Ass'nt Per hd.
Algoma	$5.40	21.1	$255.00	9.48	19.8	$498.00	....	.....	....
Brant	6.49	8.6	757.00	6.95	19.0	500.00	$12.37	23.6	....
Bruce	5.65	8.6	660.00	7.13	25.2	280.00	....	.....	....
Carleton	5.88	12.6	438.00	6.15	26.5	232.00	14.13	23.9	$577.00
Dufferin	6.56	9.5	700.00	8.42	24.2	350.00	....	.....	....
Dundas	8.17	18.8	435.00	9.10	26.2	347.00	....	.....	....
Durham	6.57	10.7	614.00	10.43	25.8	404.00	....	.....	....
Elgin	9.23	12.7	724.00	9.52	28.5	331.00	11.21	25.4	442.00
Essex	8.54	15.7	546.00	7.61	25.0	305.00	12.36	23.3	532 00
Frontenac	5.55	18.9	300.00	9.26	32.5	200 00	9 33	21.9	427.00
Glengarry	5.22	12.0	435.00	5.43	23.9	224.00	....	.....	....
Grenville	5.82	14.0	414.00	6.56	19.3	340.00	t 9.63	25.1	....
Grey	5.81	12.3	474.00	9.82	24.7	398.00	....	.....	....
Haldimand	6.58	11.2	590.00	6.82	21.2	321.00	....	.....	....
Haliburton	4.02	28.7	140 00	......	.....	....	....	.....	....
Halton	6.45	8.9	727.00	7.23	22.5	320.00	....	.....	....
Hastings	5.08	14.1	361.00	7.19	19.9	362.00	11.80	27.9	383.00
Huron	7.15	8.0	900.00	8.29	23.4	354.00	....	.....	....
Kent	10.43	15.1	700.00	7.55	28.2	268.00	17.89	36.4	491.00
Lambton	9.50	13.9	700.00	9.95	26.1	372.00	......	.....	....
Lanark	5.69	11.8	486.00	8.04	25.7	310.00	....	.....	....
Leeds	6.53	11.8	554.00	7.48	24.3	308.00	t 11.31	27.4	400.00
Lennox & Add.	6.36	13.9	451.00	9.45	26.0	362.00	....	.....	....
Lincoln	7.25	11.7	620.00	8.70	24.4	357.00	....	.....	....
Manitoulin	3.66	16.4	223.00	4.08	22.4	187.00	....	.....	....
Middlesex	8.28	9 5	872 00	7.71	23.2	332 00	....	.....	472.00
Muskoka	4.16	19 5	213 00	7.16	37.2	256.00	....	.....	....
Nipissing	5.67	19.0	308.00	7.67	23.2	330.00	....	.....	....
Norfolk	5.80	10.8	536 00	7.23	22.2	325.00	....	.....	....
North'd	5.61	11.5	490.00	7.49	22.0	343.00	....	.....	....
Ontario	6.30	9.4	670.00	8.15	25.1	324.00	....	.....	....
Oxford	7.86	8.7	900 00	9.89	24.5	400.00	8.82	20.7	402.00
Parry Sound	3.81	17.7	230.00	7 49	25.1	300.00	....	.....	....
Peel	7.08	9 7	738.00	8.93	22.2	400.00	....	.....	....
Perth	8:26	8.4	986.00	8.94	22.9	388.00	11.26	25.6	432.00
Peterborough	5.67	12.6	450.00	5.42	20.2	268.00	8.53	19.3	442.00
Prescott	4.55	12.8	357.00	4.17	21.0	200.00	....	.....	....
Pr. Edward	6.70	12.8	523 00	7.16	18.6	385.00	....	.....	....
Rainy River	8.03	19.6	401.00	12.04	24.3	500.00	....	.....	....
Renfrew	3.41	10.5	323.00	7.94	21.8	364.00	....	.....	....
Russell	5.22	14.3	370.00	3.31	42.2	78.00	....	.....	....
Simcoe	5.27	13.1	404.00	8.53	24.1	355.00	....	.....	....
Stormont	6.22	17.3	360.00	8.34	26.1	320.00	....	.....	....
Th. Bay	12.05	19.8	607.00	......	.....	....	9.70	19.1	490.00
Victoria	6 97	11.7	600.00	9.26	28.6	325 00	....	.....	....
Waterloo	6.18	8.5	720.00	9 16	21.7	422.00	....	.....	....
Welland	6.04	12.3	402.00	9.30	21.4	436.00	12.09	27.4	440.00
Wellington	6.67	8.0	840.00	7.90	24.5	322.00	6.87	17.3	400.00
Wentworth	5.71	9.2	623 09	7.39	23.4	316 00	11.33	21.2	533.00
York	7.05	12.3	574.00	8.30	24.2	343.00	14.94	22.0	667.00

FOR THE PROVINCE

Rural taxes per head $6 52 rate on $, 11.5 mills.
Urban " " " 8.41 " " $, 23.6 "
Cities " " " 12.99 " " $, 22.6 "

Now, as to distribution of grants among the urban centres, the present method, which bases apportionment on the whole population is unjust, as will readily be seen. The ratio of children of school age to the whole population presents the greatest variation in villages, towns, and cities. In my county there is a village with one teacher for each 120 of the population, while in my town, the ratio is one teacher for each 290 of the population. A large percentage of the towns and villages have less than 200 population for each teacher, and a considerable percentage have over 300 population for each primary school teacher. Here is the case of the state imposing the greater school expenditure on the fewer people, and proportioning its grant, absurdly, on the total population, without direct relation to the imposed expenditure.

A good scheme of apportionments of legislative aid to schools should aim at levelling the burden which the state imposes, and should therefore be based on such necessities as accommodation, equipment and salary bill of teachers, which under ordinary circumstances is the chief expenditure, with due consideration, of course, for the ability of the people to meet the cost of education. Such a scheme has been evolved by the Advisory Council for the urban public schools and I hope to see it in operation shortly. It is high time for a change.

An effective scheme for the distribution of a greatly increased grant to urban schools on bases somewhat similar to that for the rural schools would do much for the teaching profession. In this province the average length of service of public school teachers has been steadily lowering, and the percentage of male teachers steadily decreasing. For the year 1907 the number of male teachers in our public schools was only 19.08 per cent. of the total, and the average reduction for a number of years has been over one per cent, per year. With the passing of the county model schools, the number of male teachers-in-training in normal schools and model schools has been reduced over sixty-five per cent. The present percentage, which is now about sixteen or seventeen, will, within the next three years fall to the twelve and one-half per cent. mark, where it is likely to remain unless the province adopts heroic measures.

It is easy to impose exacting school laws, requiring a community to build and maintain schools, accompanying such compulsory law with a paltry two or three per cent. grant on the total imposed expenditure as has been the case in this province.

What wonder that the sweat-shop system has so long prevailed, making the teacher the victim and beggaring the profession by getting an average service of only five or six years from its teachers, two or three of which might be regarded as years of apprenticeship. Good salaries and a fair pension system will do much for the stability of the profession. Other provinces and states are recognizing the necessity of a pension system not only as a means of supplementing the too meagre salaries of the past, but for the purpose of inducing some degree of permanence in the profession.

We have entered on a new era in our public school system. The advent of our new normal schools and the passing of the county model school means a great increase in the number of second class certificates. The longer normal school term must give better opportunity for the preparation of young teachers, but it remains to be seen if the system will produce the expected results.

One thing I want to point out is this, that while our high schools and the continuation schools were for the past nine or ten years sending to the model schools students with the academic non-professional second and non-professional first class certificates those candidates, after their model school course, received only third class certificates. Over eighty-five per cent. of all candidates for the old county model schools since 1899 A.D., inclusive, held junior or senior leaving standing, the standing that admitted to the normal schools and the school of pedagogy respectively. Two high school students taking their senior leaving examination together, might elect to go, one to the school of pedagogy, one to the model school; the former, if successful, received a first class certificate, the latter a third. It is quite unfair to point out the deplorable conditions that existed, basing a judgment upon the name given the great majority of certificates issued to teachers. Teachers will, on graduating from the normal school, still be young and inexperienced, and too much must not be expected from a mere change of name of certificate. After all, education counts for much, and the educational standard for admission to normal schools remains the same as the standard for admission to the county model schools that disappeared last year.

THE KINDERGARTEN.

Coming again to the question of duty of the state to the training of the child, to his preparation for his place in the state, to a start towards the intellectual possessions which are his rightful heritage, to the development of mobility of hand, making possible skill in some useful craft or calling, training that will aim at redemption from vice and uselessness, the query comes, as to when the state should intervene, and the question is an eminently proper question. In this province, for many years, I believe since the inception of our school system, the question has had its answer in the age minimum of five years. England has infant schools where children are admitted in their third year. Teachers would prefer a child to be full seven years of age before attempting to teach reading and number work, or the course as outlined for our primary grades. An age test is only a test for averages, a child of five may have the development of the average child of seven, another child of five may be practically an infant of three. A well developed child of six or seven when introduced to the language as presented to the eye, the language that he already knows well through ear and speech, will learn as much about it in two months as a three year old can learn in a year, and in two years will be on equal terms with a child who has been four years in school who began reading before his development and acquirements prepared him for the work. The English system is only in process of evolution. The English people recognize the necessity of early intervention on the part of the state, and the value of such assistance in the early training of the child, as teachers can give, to say nothing of the importance of placing many children under other influence and training than that of too many homes.

At the age of two or three begins a rapid development under suitable conditions, and it is well that the conditions should be the best possible. These are not found in the average home, so that England, after all, is wise in seeking to intervene on the child's and the nation's behalf, when the child is still very young. But beyond all question the subject of reading, the acquisition of the language through the eye is not the best for his training in his fifth or six years. or the age when he may be sent to the public school. Dr. W. J. Harris, United States Commissioner of Education, and one of the strongest advocates of the Kindergarten system, in a recent article on the question claims for the Kindergarten a superiority over the old methods of the primary school. "In the home the child has completed the nurture stage. He now has arrived at the time when it is best for him to spend some portion of the day in social life with his fellows. He gets valuable training from the association and from the efforts he makes to master certain tasks set for him to do. The Kindergarten is the best system devised for the transition from the family to the full-fledged school. He does not learn to read in the true Kindergarten. The age of seven is the best time for beginning the art of reading. While the kindergarten is excellent for all children of age four, five or six, it is really essential for the salvation of two classes; the children of weaklings, of those who had not moral ideals or standards of opinion or weak in intelligence, children who are naturally dull or with some form of imbecility, and children spoiled by indulgence and neglect, of parental oversight and training.

The kindergarten, with its powerful system of nurture, makes easy the part of one of these weaklings to come to self respect, to come to moral ideas, to industry and to perseverence which conquers its natural obstacles. The kindergarten can in this w y prove a true blessing to the community preparing the child, with great success, for a helpful participation in civilized modes of living."

Now, while the course of the kindergarten is not designed as a preparation for the study of any specific subject, such as reading or arithmetic, and while its course offers a valuable training in itself, it is worth considering the question of relation of the training of the kindergarten to the public school course proper. The question has been carefully and widely studied, and my own experience has been amply verified. The public school course is designed to cover eight years, practically all the children in our schools have taken the kindergarten course, many of our pupils, I am sorry to say, complete the public school course taking entrance examination in six years, and nearly all in seven years.

Before we had kindergartens in all our schools I had opportunity of making some interesting comparisons, I have placed one lot of pupils in the kindergarten and one in a primary room, pupils of equal average age, but in the third or fourth year the classes were equal in the public school course. My experience has been the experience in other centres where observations and comparisons have been made. . . . . . .

Bodily activities, such as play and occupations afford, have been the means of developing and transforming the child during the nurture stage, and they are the best means for continuing the development of a large percentage of children throughout the whole childhood period. In the ordinary primary school course, there is a complete ignoring of manual occupations, and, to many children, it is a means of arresting or at least retarding, development, although the purpose is just the opposite, many children leave school at an early age and go into some occupation to their own and the state's benefit, and too many leave school without having profited much by their course, to the state's great loss.

Beginning with the kindergarten course, continuing kindergarten and more advanced occupations in the early part of the public school course, following with manual and technical training, cannot but result in a great uplift for the whole state.

This proper initial course should be adopted in all graded schools, at least. You who are charged with the responsibility of financing, will think at once of the question of cost. I think it could be demonstrated clearly that the closing of kindergartens in towns where they are established, would not lessen the expenditure for the public schools, and I would be willing to discuss this phase of the question if time would permit.

Let me hope that some of the matters I have been privileged to bring before you will engage your attention and end in practical results.

HOME SCIENCE SECTION.

REPORT ON ENGLISH SECONDARY SCHOOLS.

MISS JESSIE HILLS.

The secondary schools of England are closely akin to our own high schools. Pupils must be at least twelve years old, and are required to pass an entrance examination. The aim of the schools is to prepare students for commercial life, teaching, or London matriculation.

In these schools, household science comprises three branches—needlework, cookery, and laundry work. Needlework extends over the five years' course; cookery and laundry work are taught during the first two years only.

COURSE IN NEEDLEWORK.

First Year.—A general review of work taken in the elementary schools, with special attention to flannel and flannelette patches, buttonholes, loops, and tapes—cutting and making one simple garment.

Second Year.—Darning, cutting and making three garments.

Third Year.—Re-adapting undergarments, sewing and mending household linen, use of sewing machines.

Fourth Year.—Finer stitches, drafting, cutting and making three garments.

Fifth Year.—Advanced sewing.

The course in cookery consists of twenty-two lessons each year. The first year's work is essentially practical, each lesson consisting of a demonstration by the teacher, followed by the practice of the class. The dishes made in this year include such dishes as are commonly made at home. The cost, preparation, and choice of food, the object and methods of cooking, care and cleaning of cooking utensils, and management of stoves are discussed.

The second year includes the classification, digestive, and nutritive value of foods, marketing and the drawing up of menus.

The laundry work is similar to our own, in its outline, and is thorough and practical. All laundry requisites are supplied by the school, but the materials used in the kitchen are paid for by the children, if they wish; if not, the food is either sent to the lunch room or sold by the teacher in charge, consequently the pupils work with much larger quantities than is usual in our schools.

The rooms are large and airy, and are hung with cases showing the different processes in the preparation of food, and the manufacturing of textiles. These exhibits are especially prepared for schools by the manufacturers.

The teaching of household science in England can be summed up in two words—"English thoroughness."

ENGLISH HOUSEHOLD SCIENCE TRAINING SCHOOLS.

Miss A. L. Laird.

Nearly all the training schools in household science in England were started as private institutions, but they are gradually passing from private authorities to the local educational authorities.

To be a recognized training school, the school must comply with the regulations of the Board of Education, or, as we would say, the Education Department. According to the regulations in force August, 1908, there are eighteen recognized training schools in England and Wales, a new one has recently been opened in London, Leeds and Manchester expect to build new schools very shortly.

The regulations of the Board are much more definite than ours here. Among the rules and regulations one notices such as the following: The training school must be superintended by a responsible governing body, of whom at least one-third must be women. The students must be not less than eighteen years of age and must be physically and mentally qualified to take advantage of the instruction, and a note adds that, in future regulations, some minimum requirement of general education may be laid down.

The diplomas recognized by the Board are:

I. A full diploma for cookery.

In order to obtain this, candidates must have trained in a recognized training school for not less than 840 hours. Of these 840 hours, not less than 80 and not more than 100 must have been occupied, under proper supervision, with the teaching of classes of children attending public elementary schools, and in criticism lessons, and of this time, at least 40 hours must have been spent by each student in individual practice in teaching. In addition, a course of instruction in science of not less than 80 hours, and in education of not less than 40 hours is required. The examinations must include a paper on the principles of cookery and practical work as follows: Practical cookery, teaching cookery to children and teaching cookery to adults by demonstration.

II. A limited diploma for cookery.

This is a short course for those who already hold regular teachers' certificates. The Board requires that they spend not less than 280 hours in cookery and food work, of which 26 hours at least must have been spent under proper supervision in individual practice in teaching cookery to classes of children attending public elementary schools. The work in science and education is not required for this diploma.

III. A diploma for laundry work.

This requires a training of not less than 460 hours in laundry work, of these 460 hours, not less than 60 or more than 80 hours must be occupied with teaching, and not less than 30 hours must be spent by each student in individual practice in teaching. If science and education have not already been taken, not less than 80 hours science and 40 hours education are required.

IV. A diploma for housewifery.

To obtain this, training of not less than 300 hours in housewifery is required, and no candidate is eligible for this diploma who does not hold diplomas for cookery and laundry work, recognized by the Board. This work, when taught in elementary schools, is conducted in a house, usually consisting of living room, kitchen, pantry, scullery, laundry, bedroom and class room. The furniture is simple, special attention being paid to cost. Instruction is given in the management of a household, chemistry of foods, home nursing, first aids to the injured, and hygiene. Meals at various prices are prepared and served to the teachers and pupils, and the entire work of the house is done by the children under supervision.

V. A diploma for combined domestic subjects.

In order to obtain this not less than 1,600 hours training in domestic subjects is required. 840 hours must be devoted to cookery, 460 hours to laundry work, 300 hours to housewifery. In addition to this, the candidate must spend 80 hours on science and 40 hours on education.

The records of the work done and progress shown by student during the course of training, is taken into account in awarding the diploma, but the Board prescribes certain definite examinations and the regulations require that the examinations must be efficiently conducted by expert examiners who are not in any way connected with the training of the candidates, and the examination papers must be marked in accordance with the principles adopted in the Board's own examinations. Even after her training, a student's diploma is not fully endorsed until she has taught for two years to the satisfaction of the inspector.

The Board now gives a grant to training schools of domestic subjects, according to the number of students and the courses taken. The grants are:

£7 for each student completing course for full diploma in cookery.

£2 for each student completing limited course.

£3 for each student completing laundry work.

£2 for each student completing housewifery course.

£12 for each student completing a course for a diploma for combined domestic subjects.

However, no grant is made unless the student has made a declaration that she enters the training school with the intention of eventually becoming a teacher of domestic subjects in a school approved by the Board for this purpose.

No grant is paid on what is called high class cookery—this being something outside the province of the Board, and not included in the diploma. The diploma for such cookery is granted by a private or public body of examiners such as the "National Union." Although grants are paid by the government, fees at the English training schools are considerably higher than here. It is perhaps rather difficult to make a comparison as the work is carried on so differently, but, to take cookery, laundry work or housewifery or the combined domestic subjects, fees vary from £35 to £70.

The student in the training schools, generally speaking, completes one subject before taking up another. Housewifery is, of course, a kind of combination of all the subjects, but it cannot be taken until cookery and laundry work have been completed.

It would be utterly impossible to give any detailed account of the work at the various training schools. We have seen from the government regulations that great emphasis is placed on practical work and much more time is spent on it than we spend, while less time is given to science and other work. However, we must not get the idea that practical work is all, and the following outline of the work as planned in one training school will perhaps help us to a more definite idea of their courses.

Course of Instruction.

(*a*) General principles of cookery, and their modifications in the practical preparation of food for infants, children, invalids and adults living under widely varying conditions.

(*b*) The elementary science of common life (chemistry.)

(*c*) Hygiene, including elementary human physiology, personal, public and school hygiene, first aid.

(*d*) Dietetics.

(*e*) Household economics—cost of living, cost of food, division of income, methods of purchase.

(*f*) Practical cleaning and the principles involved.

(*g*) Care and feeding of infants.

(*h*) Theory and practice of education.

(*i*) Voice production.

(*j*) Blackboard drawing.

In speaking of English training schools we should not overlook the new department in home science and household economics in the Woman's Department of King's College University of London. A one year's course is offered which is intended for graduates who have taken an approved degree or have such other qualifications as the college may consider equivalent for the purpose. A diploma is awarded by the college to students who take a complete course and pass an examination to the satisfaction of the Council.

The course comprises:

Applied chemistry.—60 hours lecture, 120 hours practical.

Sanitary science and hygiene—60 hours lecture, 60 hours practical.

Economics of the household—60 hours lecture.

Practical household science—180 hours, of which 90 hours must be taken in kitchen laboratory. The work also includes laundry and housewifery.

It certainly means a great deal that one of the leading universities has established a course in household science. The work planned for the first year is as follows:

General Biology—60 hours lecture, 90 hours laboratory.

Chemistry—60 hours lecture, 120 hours laboratory.

Physics—30 hours lecture, 60 hours laboratory.

Industrial and commercial history—60 hours lecture.

Practical household science, including a short course in business methods, for which the time is yet to be determined.

An option of 30 hours lecture in some approved subject.

This curriculum will no doubt, be changed as the work proceeds, but to quote from the circular: "The main object is to provide a thoroughly scientific education in the principles underlying the whole organization of home life, the conduct of institutions and other spheres of civic and social work in which the same principles are applicable."

HYGIENE SECTION.

THE RELATION OF TEACHER AND NURSE TO MEDICAL INSPECTION.

Dr. James Roberts, M.H.O., Hamilton.

Education has been defined as "a biological process whereby certain discrete growing organisms are in process of being fitted to their environment in order to render them more useful to that concrete organism, the state."

In so far as it affords a justification for the assumption by the state of education as its own concern and monopoly the definition is a good one. It becomes, consequently, the business of the state to lead the way in any system of educational reform. In no sphere where government exercises its influence will it obtain a more generous recompense for the consideration given than in that particular phase of reform about which in late years we have been talking a good deal—the physical inspection of the pupils in our state schools.

We will take it for granted that the exigencies of life to-day mean an adaptation of the child to a two-fold environment, physical on the one hand, on the other mental, and that for by far the larger proportion of the children who are subjected to the process of education the proper development of the physical nature is to them of supreme importance as being responsible for success or failure, for a happy or a miserable existence. Vigor and vitality of body and not refinement of intellect are essentials for the work they will be called upon to perform. Most of them will in the course of time become the parents of the next generation and will, therefore, obviously enough, bequeath, to a large extent, the strength, or weakness, the alertness or stupidity, the courage or the cowardice, the genius or inertia, the truth or falsehood, the freedom or the slavery, that are destined to predominate in the generations yet unborn.

The testimony of the ancients bears witness to the fact that their best civilizations were thoroughly alive to the importance of the physical environment as well as the mental. Mediaevalism, on the other hand, with its vigils, retirements and seclusions; debasements and degradations, humiliations, tortures and mutilations of the flesh, fostering its fanatacism and tyranny; its dearth of the creative instinct in either the useful or the beautiful; its murders without remorse, its bloody and purposeless wars, judged in an imparial spirit, is the tangible evidence of a cumulative insanity bred in catacombs and cloisters, impenetrable to sunlight and fresh air.

The present age with its multiplicity and increase of jails, asylums and poor houses; quack nerve specialists, sanataria for nervous disorders and innumerable nerve nostrums; its legions of boys and girls that by want and the fear of want are forced at the tender, formative, most impressionable period of their lives into drudgery too crushing for the endurance of the strong; the agonies, despairs, exhaustions, hysterias of the individual life of to-day, all attest only too surely that the greatest of faults committed in the name of education is the non-recognition of the physical either as all-powerful or all-controlling in the manifestation of the mental.

The inability to grasp and appreciate this fundamental truth has led in the past to dissipation of time, waste of public and private funds and to the perpetration of grave injustice upon multitudes of school children.

Fortunately the time has passed when attention to the physical needs of scholars is looked upon as a fad or an innovation with no other reason for its being undertaken than that assigned by the chronic fault finder who regards it as furnishing an occupation for the unemployed doctor in the first place, and in the second, as a means for extorting money from the taxpayer. The interest in Medical Inspection of Schools increases perceptibly year after year. The aims and objects of the movement appeal to the common sense of the man in the street.

The work of the teacher and hygienist in the future is to be complementary, often of necessity identical, and no one is more alive to the fact than the teacher who herself is sane both in mind and body. A prominent educationist in this connection has said:

"The most grievous single obstacle in the way of the spread of sound educational principles is the popular view that the essentials of education are limited to instruction in reading, writing and arithmetic. It might fairly be argued, and with no small force, that the possession of so much knowledge alone is a positive detriment to a human being, especially if that knowledge has been gained at the expense of physical and moral habits, which in educational value far outweigh any such meagre intellectual attainments. Teachers and parents do not recognize that eyesight is being impaired, normal growth prevented, blood poisoned, and the body starved because the hours of school-life are so often unhealthy and abnormal hours. It is not true that a child is always and everywhere better off than running at large in any village or city. If the class room is already crowded, if there are already too many pupils assigned to a teacher, then every additional pupil who is brought in injures those who are already there and receives injury himself."

Such destructive criticism as the foregoing might well be interpreted by the educationist of not many years ago as the hasty deductions of an iconoclastic sanitarian and not as the authoritative message of a distinguished confrére.

Is it not true? Can a teacher of conscience or reflective temperament be found who after five years' experience in actual school work does not lament this disregard of hygienic requirements as having wasted time, nullified effort and prevented keen mental reaction?

I would in no sense desire to leave the impression that the teacher is to usurp the place of the medical authority in the inspection of schools, but it is largely upon her training in hygiene and upon her ability to utilize everyday principles with practical advantage to her pupils on the many occasions which will arise for so doing, that we must rely for the awakening of a national health conscience which will refuse to look upon the acquisition of measles and whooping cough in fancy as desirable, upon diphtheria as unpreventable and the concern of no one in particular, upon damaged eyesight as a dispensation of Providence, or upon the possession and maintenance of perfect health as other than a question of the highest consideration.

Granted that in theory some mental equipment pertaining to the laws of health is indispensable for the educationist of to-day, what is the standard of knowledge and practice to which the teacher should aspire in order to fit herself for an intelligent inquiry into the physical needs of the children under her care?

On this point there seems to be a great diversity of opinion among those best qualified to speak from experience and observation. On the one hand are those who would limit the knowledge of hygiene to be acquired by the teacher for this purpose to some elementary facts and principles of physiology and psychology it may be, or to the capability of taking a few simple anthropometrical measurements of the scholars, say once in six months. The practical utility of demonstrations like blowing expired air into lime water through a glass tube, of reading from a text-book to a class the arbitrary divisions of the teeth into molars, bicuspids, canines, etc., or the still more arbitrary division of the small intestine into duodenum, jejunum and ileum is appraised by them at a value entirely unappreciated by the thinking mind. It is impossible to regard a teacher fortified to this extent only in such an important subject as hygiene except in the same light as one regards a teacher of mathematics or electricity with a knowledge of these branches slightly, if at all, more comprehensive than that of his pupils.

Any inspector of public schools, urban or rural, could furnish a list of answers obtained at the annual entrance examinations so absurd and ludicrous as to admirably illustrate the actual worth of some of the text-books on physiology now in the hands of the boys and girls at school. These answers prove conclusively that the book has been the *sine qua non* of the teacher and that its contents have been dispensed in doses altogether disproportionate to the receptive capacity of the pupil, without any evidence of its simplification or adaptation to the child's mental calibre. In short, there has been too much book, too little handling of the subject in that live practical, vivid fashion calculated to render it at least as interesting and attractive as the presentation of geography. Line after line, page after page, about the effects of alcohol on stomach, nerves and muscles, have been memorized and re-memorized and no instruction given on the proper use of the toothbrush, the nastiness and dangers of spitting, the virtues of cleanliness, the life-giving properties of pure air. The truth of the matter is, that no one can hope to succeed in clothing any subject with the fascination and reality so essential to a keen receptivity on the part of the listener without in the first place having an exhaustive acquaintance with its details and also extensive information and wide reading in allied and cognate subjects.

But all this is mere talk unless you have caught the drift of what I want to make clear, viz., that which Dean Russell, of Teacher's College, Columbia University puts so concisely: "All must realize that intellectual training without the physical ability to apply it is a waste of time, and that character building without a sound physical foundation is a well-nigh impossible task. Hygiene, or the art and science of health, is one of the most important studies, if not the most important, in the education of any person, and yet how sadly it has been neglected. Ideal conditions are hardly attainable in school-life; indeed, from the physical standpoint, any form of school-life which involves five or six hours of close confinement can never be ideal. Nevertheless, the teacher should know how to make the most of the conditions imposed upon him."

To counteract the injurious influences, not amounting to actual disease and seen by the school teacher rather than by the doctor, but which warp and maim the child in body and mind, the teacher must know *what the body is.* To attain to this knowledge she must study not merely corporeal forms, but also the chemical, physical and biological processes upon which life and growth depend, the knowledge of which is essential to a proper conception of the laws of health. To understand chemistry is to understand how the potential energy of food is transmuted into the kinetic energy of the child's activities, and, because of this knowledge, to recognize that many mental and moral defects are often attributable to malnutrition. To know physical science is to know the hygienic principles of ventilation and drainage, the acoustics of the ear and the optics of the eye, for pure physical defects of the eye form probably more than one-half of the school troubles in eye-sight. Biologically considered, the child is the end link in a great chain of being that culminates in man, and for an adequate conception of the influences which have evolved him and which still control his development, a knowledge of biology is needed. In this connection could be inculcated a sane conception of the phenomena of sex and the purpose of reproduction. "The child of to-day is the father or mother of the race of to-morrow." In what ways does he learn of the laws governing reproduction, of sex differences and sex impulses? He picks his information out of the gutter. The things his parents are ashamed to speak of to him he learns, greedily enough, it may be, from the coarse mind of a servant, or from the unwholesome imaginings of an older boy at school; learns of them in a way to debase his coming manhood, to leave his mind the prey of evil images, his body an instrument for suggested and secret vice.

The most important of all our social actions is the one on which educators are uniformly silent; the only temptations that are inevitable to a boy are the only ones for which he is totally unprepared by any wise instruction on the part of parent or teacher.''

A knowledge of bacteriology would give the teacher an adequate idea of those microscopic organisms which constantly imperil the health of the child, and consequently the medical directors would have intelligent assistance in their efforts to mitigate disease. The principles of hygiene being thus derived from chemistry, physics and biology, it behooves the teacher to obtain a practical knowledge of those sciences, which will enable her to do more than mechanically apply a few rules crammed from a text-book. Equipped thus thoroughly and scientifically, she will be able to co-operate intelligently and efficaciously with the expert medical hygienist who supervises this department of educational work and also be qualified to properly teach hygienic principles.

One of the main problems which confronts us also is the amount of actual assistance to be rendered by the teacher to the medical inspector proper in his work.

In my annual report for 1907, while touching upon the subject, I took occasion to remark upon the efficiency of our staff of inspectors in Hamilton, long before medical inspection was mooted there, and to say that the work of principals and teachers themselves, especially in eliminating contagious disease from the schools had been most commendable:

"They have at all times promptly referred all suspicious cases to our department, are always on the lookout to ascertain why pupils are absent from school, and have been most particular in seeing that children are not allowed back to class from homes where contagion has existed without the proper certificate from the Health Officer.'' With a better training in school hygiene they will come to recognize more fully the immense importance of the physical condition of the children entrusted to their care and will welcome medical inspection as a material and practical aid to them in their work even more than they are doing at the present time.

In the countries where the work has been taken up most seriously they have been found the enthusiastic supporters of the movement, have rendered cordial co-operation and have been able to gather valuable data for the medical examiner.

Recently, in Glasgow, the teachers collected a vast number of observations on the height, weight and physical condition of the children. In Germany, this is done every six months, with the idea of deriving useful information as to physical development. Information of this kind is most readily obtainable from the teacher of each class. Such details as age, occupation of parents, home environment, regularity of attendance, can be readily supplied by the teacher who is in more or less close relation to the parents and the home life of the child. In London, children's sight is examined by the teachers, who report deficiencies to the regular expert. In Edinburgh, the school physician with their help has carried out an exhaustive inquiry into the acuteness of vision of the scholars and they have entered into the work with zest and interest.

Mouth-breathing children—the subjects of adenoids — are usually deaf, and this interferes to a certain extent with their reception of oral instruction. To inspect and sift out these from among a large number of pupils is a task which can be more simply and economically carried out by the teacher and often more advantageously.

In the matter of physical exercises, if armed with the physiology of nerves and muscles to which we alluded above, she can apply them rationally and beneficially and is able to adapt them in such a manner as to meet individual cases where their unintelligent employment might result in harm rather than good. Gymnastics is not in every instance a mentally recuperative subject, the effects not depending on the exercise alone, but also on the teacher, under whose direction it may be productive of pronounced fatigue.

A child's capacity for attention depends very largely on his physical condition and particularly on the state of his sense organs. The teacher, therefore, will not need to await the direction of the medical supervisor as to the warming, lighting and ventilation of the class room, the seating of the pupils, the arranging of maps and diagrams in proper light and at correct distances from the class, and the rotation of lessons that make different demands on the different muscles and sense organs.

In Germany, Austria, Switzerland, Norway, Sweden, and other countries where the introduction of the spray bath has proven such an invigorating and healthy influence, the teachers are largely responsible for its success; their kindly tact can be utilized in conquering initial difficulties such as parental opposition, shyness and timidity of children and the strangeness of unfamiliar surroundings. To our teachers, themselves, realizing the importance of such an aid to physical well-being, must fall in large measure the task of inspiring a public opinion which will make possible the adoption of what seems at first sight merely a far-fetched fad. To those in our larger cities conversant with present conditions and interested in the sanitary crusade for cleaniness, and more especially personal cleanliness, their installation in this country is only a matter of time. The teachers will be amply repaid for any additional work which their establishment entails by the physical and moral gain accruing to the children and in the improved atmosphere and environment which they will inevitably produce.

In those aspects of physical inspection to which I have briefly alluded and in others, we must appeal to the teachers for their ready and willing help. Only those who have some acquaintance with the duties of teachers, can realize the multitudinous tasks which devolve as a matter course upon them—school work, school examinations, complaints from parents, interviews with trustees, inspector's visits and sundry odds and ends. To elicit the sympathy and assistance of the teacher in his work the school medical officer must have tact and due consideration for her place and function in the school room. Possession of these will, in the majority of instances, obtain for him that hearty zeal and co-operation on her part which will ensure for his work recognized status and genuine appreciation in the community.

THE SCHOOL NURSE.

The greatest care should be taken to see that the school nurse is in every way qualified for the post she is to occupy and the work she is about to undertake.

Tact, cheerfulness and a minimum supply of sensitiveness are essentials. Some teachers and principals are apt at first to regard the visits of the nurse in the nature of an intrusion and as more or less of an interference with the every day stereotyped routine of lessons. With a few of them still (and the training schools are often responsible for the inculcation of the habit) the nicely graduated time table is their ten commandments, non-adherence to which means, at the close of the day's work, an uneasy conscience, irritability, exhaustion and dissatisfaction with what has been accomplished. The traditional, the time worn and formal, the three R's at any cost, have so permeated and saturated their mental atmosphere that they cannot yet fully realize how "unwise choice of material for study, unwise direction of effort, unwise inhibition of pleasurable activities, the unwise abuse of sense organs and the unattractiveness of themselves and their methods are responsible for much of the weariness and inattention of the pupils, their repugnance and mental nausea toward familiar tasks and the inertia and lifelessness present in the school room toward the end of the morning and the afternoon lesson hours." If they did they would welcome the visit of the nurse as a digression, if not for other reasons.

The school nurse has, I think, a place to fill and a work to do in connection with school organization, and has, let us hope, come to stay. In Hamilton, we have had the services of one for a period of two years, and I am gratified with the results of her work in (1) bettering the sanitation in some of the schools, (2) in eliminating infectious and contagious diseases, and (3) in improving the standard of cleanliness and the general morale of the children. Did time permit it would afford me considerable pleasure to submit a brief résumé of her work during the last year.

Wherever possible the responsibility of parents has been carefully insisted upon. Special attention has been paid in those instances, and they are many, where home environment is in an unsatisfactory state and home training almost a negligible quantity. Directions in full, printed, are sent to mothers, reinforced by varbal where necessary, as to what should be undertaken for the cure of parasitic conditions. No medicines or materials are supplied except when there is extreme poverty or ignorance and the responsibility of carrying out instructions is entirely in the hands of the parents.

The prevention of infection is one of the principal, if not the prime function of the physical inspection of children. The community undertakes a very serious responsibility when it masses together large numbers of children at the time in their lives most susceptible to nearly all the communicable diseases and should take every possible precaution to minimize the dangers incurred by such aggregation. To attempt the realization of this by utilizing the daily or even less frequent visits of a medical practitioner would, in my opinion, be wasteful, not to speak of the disorganization produced as an additional and probable result. As practical men and women, we have to make our ideals reasonable and feasible, subjected, as they inevitably must be, to the diversified and multiform influences, actuating and dominating the minds of the men to whom we look for their adoption. Regard must be had for considerations of economy, and where the services of a nurse or teacher are sufficient there is no justification for the employment of a doctor.

In this one particular alone of eliminating contagious and infectious diseases the too frequent visit of the doctor can only result in defeating its own object; and with respect to other conditions discoverable and remediable by the nurse, his omnipresence in the school room could only result in his work becoming as perfunctory and lifeless as much that we have been lately inveighing so persistently against and in all likelihood in its becoming through time as worthy of condemnation. Communicable diseases can only be combatted and controlled through a system of notification as complete and efficient as possible. Every notification which comes to headquarters, in so far as it has any bearing on medical inspection of schools, is the starting point for an investigation into all the children with which the infected may possibly have come in contact and into the liability of these to act not only as carriers, but also as sources of infection while subjects of disease in mild or attentuated form. Such investigation must be careful and painstaking and must utilize every means, including bacteriological, which science places at our disposal. While not suggesting that the nurse can do such work entirely and alone, or undertake that part which is the province of the highly trained scientific expert, we have abundantly satisfied ourselves that, even better than a sanitary inspector, under the supervision of the Health Officer, she can make preliminary investigations of importance, and with very little instruction, be of great help in the early detection of communicable diseases and their proper segregation. Indeed, in more than one instance in which her decision has been called in question I have personal knowledge that her thoroughness of examination and keenness of observation has brought about the discomfiture of the physician.

The function of the doctor or health officer as organizer, supervisor and instructor, is a vital and important one, and will furnish him with an ample and sufficient sphere of usefulness without attending to the details and minutiae which can easily and preferably be relegated to the nurse.

With respect to measles, whooping cough, mumps, chickenpox, etc., where in most cases it is difficult to see that an effective quarantine is maintained, she can be of service in explaining their seriousness, and how they ought to be controlled. Measles and whooping cough are more fatal than all the other contagious diseases put together, but confine their fatal results almost entirely to children of very tender years. If, therefore, we could postpone their onset until after five or six years there would be a notable decrease in the mortality from this cause.

The parents of those suffering from scabies, pediculosis, contagious impetigo and ophthalmia are to be advised as to treatment by the nurse, when there is no physician in attendance—which is very often the case. Many times teachers do not realize the amount of dirt or vermin to be found until the nurse points it out. Under instruction from the school doctor or health officer, as the case may be, she should follow up these cases at home, instruct the mother what to do in order to effect a cure, and, in some instances, supervise the application of the remedy. In a certain percentage of cases her instructions will be followed out, but some parents unfortunately are found, too ignorant, or too lazy, or with too little inclination or even too resentful to follow the advice given. Perseverance and endless patience are necessary in these cases, the only effectual remedy being the establishment of school clinics where the little ones could receive daily efficient attention.

The improvement of school children's teeth is a crying necessity which calls for the assistance of the municipal authorities. Without the services of school dentists and the establishment of dental infirmaries it will be impossible to do much in this direction. To look after the teeth of the average family in a proper manner requires more money than the ordinary wage-earner is able to afford, and we need not be surprised to learn that in 75 per cent. of children their care and preservation is sadly neglected and the efforts of the nurse rendered futile.

In this department of her work as in others, her progress will be uphill and tedious, but let us hope that in time the united efforts of medical inspector, teacher and nurse will create in the minds of parents and in the community at large a higher conception of the duties which are owing to our school children.

Osler truly says: "By far the most dangerous foe we have to fight is apathy—indifference from whatever cause, not from lack of knowledge, but from carelessness, from absorption in other pursuits, from a contempt bred of self-satisfaction. Fully 25 per cent. of the deaths in the community are due to this accursed apathy, fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway systems with which enterprise and energy have traversed the land, when the supreme law, the public health, is neglected? What comfort in the thought of a people enjoying great material prosperity when we know that the primary elements of life (on which even the old Romans were our masters) are denied to them! What consolation does the little red school house afford when we know that a Lethean apathy allows toll to be taken of every class from the little tots to the youths and maidens?"

This is a matter not alone for local legislation, but for federal. It is matter that very materially concerns the future destiny of our country. It is, in brief, a matter of human life versus dollars and cents.

THE DANGER TO CHILDREN OF CONTRACTING TUBERCULOSIS FROM MILK.

Dr. Chas. J. C. O. Hastings.

In the presentation of "The Cause and Nature of Tuberculosis," by Villemin, in 1865, and his thorough and scientific demonstrations of its transmissibility from man to animal, which he did by inoculating rabbits not only with tubercular material from human beings, but also from cases of bovine tuberculosis, and thereby proving the identity of human and animal tuberculosis. For the knowledge we possess, however, of the nature and cause of tuberculosis, to none are we more indebted than Prof. Koch, who, had be done nothing else for medical science, has immortalized his name along this line alone. In the world-famed communication by this great German Professor, entitled "The Etiology of Tuberculosis," in which he stated that Willemin had done most thorough and methodical inoculation experiments, using material from man and cattle," and conclusively proved experimentally, the identity of the two diseases. And, as a result of his own experiments, he said, "The perfect identity of the tuberculous process in different kinds of animals cannot be doubted," and further on he makes the statement that "It is certain that the milk of tubercular animals may give rise to tuberculosis in the human race." This opinion has been universally accepted for years, and in view of this, when this same professor made the revolutionary announcement before The International Congress of Tuberculosis, held in London, in 1901, "That bovine tuberculosis is only transmissible to the human race in a very slight degree, if at all, and that precautionary measures against it were quite unnecessary, one can readily understand this statement coming like a thunder bolt from a cloudless sky. However, history shows that such mental shocks are necessary in order to stimulate a keener spirit of research, and, I question if ever a statement fell from the lips of Professor Koch that has been productive of more good, for as an outcome of this statement, commissions were appointed in Great Britain and Germany, and searching and exhaustive work has been done in the United States and Canada, and in fact much research work has been done in all the civilized countries of the world.

To men and women who think (of which this Association is composed) it will not be necessary in this paper to give more than a brief summary of what has been done by these commissions and ivestigations, and the conclusions arrived at.

The Second Interim Report of the Royal Commission on "Human and Animal Tuberculosis in Great Britain," composed of such eminent authorities as the late Sir Michael Foster, Professor Sims Woodhead and two distinguished veterinarians, after the most careful and accurate experimenting on the various animals, came to the following conclusions:

"That a large proportion of tuberculosis contracted by ingestion is due to bacilli of a bovine source, and that a very considerable amount of disease and loss of life, especially among children, must be attributed to cow's milk containing tubercle bacilli. The presence of tubercle bacillia can be detected, though with some difficulty, if the proper means be adopted, and such milk ought never to be used as food. There is far less difficulty, however, in recognizing clinically that a cow is suffering from tuberculosis, in which case she may be yielding tuberculous milk. The milk produced from such a cow ought not to form a part of human food, and, indeed, ought not to be used as food at all.

In summarizing our results we conclude with the following statement: "The bacilli of tuberculosis does not act on the cow alone, for it can give rise to tuberculosis in many other animals, such as the guinea pig, the rabbit, the ape, etc. Furthermore, it does not act on the cow with special energy for it can give rise to tuberculosis in any other animals as readily or even more readily, than in the cow itself (we call it the bacillus of bovine tuberculosis merely because we find it most frequently in the cow, it being the cause of bovine tuberculosis)."

The fact that the bacillus of bovine tuberculosis can readily, by feeding as well as by subcutaneous injection, give rise to generalized tuberculosis in the anthropoid ape—so nearly related to man—and indeed seems, so far as our experiments go, to produce this result more readily than in the cow itself, has an importance so obvious that it need not be further dwelt upon.

Our conclusions clearly point to the necessity of measures more stringent than those at present in force, being taken to prevent the sale or consumption of milk from tuberculous cows."

The intercommunicability of human and bovine tuberculosis as set forth in a bulletin of the Bureau of Animal Industry of the United States Department of Agriculture. The research work therein referred to having been conducted by Drs. Schroeder and Cotton of that department. Their conclusions were very definite and sweeping. "They state that as a result of their experiments they are convinced that a tuberculous cow is more dangerous to the health of man than is a human consumptive."

Dr. Nathan Raw, a well recognized authority in Liverpool, says: "That bovine tuberculosis affects young people and is traceable to milk from tubercular cows. It affects the tonsils, the alimentary canal, the glands and through the blood, the meninges; the bones, the joints and other parts; while human tuberculosis affects adults by way of the lungs, as in pulmonary consumption.

Professor Von Behring (Germany), and his followers, in their observations have arrived at the conclusion, "That tuberculosis in children is principally disseminated through the alimentary canal; the chief source being tuberculous milk."

Dr. W. L. Moss, (Instructor in Medicine in Johns Hopkins University), in a valuable article entitled, "The Relation of Bovine to Human Tuberculosis," cites some seventeen cases of wound infection among veterinarians, butchers, etc., resulting in either local or general tuberculosis, and in addition to this he reports some thirty case of alimentary infection. He also reports Bang, of Denmark, as reporting nine cases collected by him, all of which could be traced with reasonable certainty to milk from tuberculous cows.

Von Ruck reports the case of a father and child, and in fact several cases, in which he was convinced that milk was the source of the infection. Oliver reports thirteen cases of tuberculosis in a school supplied with milk from a tubercular cow.

Brouardel reports that in a boarding school in which there were fourteen girls, five contracted tuberculosis from milk from a tubercular cow.

Woodhead is quoted as the authority for the statement that in a dairy in Scotland, three cows were found to have tuberculosis of the udder. In the institution to which this milk was supplied, the mortality from tuberculosis for the past year was thirty per cent., and the preceeding year, forty per cent. of the total mortality.

Dr. Gosse, of Geneva, reports rather a touching case in his own family. His daughter, seventeen years old, spent every Sunday in the country on her father's farm, where she drank freely of warm milk, freshly taken from the cow. She died after ten months' illness. Four of the five cows on the farm were found to be tuberculous, and two of them killed were found to have tuberculosis of the udder. Dr. Gosse had a careful post mortem investigation made on the remains of his daughter and gave the results to the scientific world.

The best apology we can offer for not having recognized the danger of contracting tuberculosis through food and more especially milk, for most other articles of food are submitted to a temperature that will destroy the tubercle bacilli before being eaten, is the fact that the air passages were long looked upon as the principal, if not the sole avenue through which these germs reached the lungs, but recent experiments on animals and post mortem observations have revealed the fact that in the majority of cases the germs gain entrance to the stomach with either food or drink and pass into the bowels where they either set up local disturbance or passing through the mucous membrane of the bowel, gain entrance to the main lymph stream of the thoracic duct, hence through the subclavian and internal jugular veins to the right side of the heart, thence to the lungs where they are filtered out by the network of vessels in these organs and in this tissue and the bronchial glands they find conditions best suited for their development. Here they may lie latent until the vitality of the parts become lowered through some inflammatory action, when they gain the ascendency over the resisting forces of nature and the host becomes a victim of tuberculosis.

The question is often asked, "Does the milk of a tubercular cow who's udder is not affected contain tubercle bacilli?" The concensus of opinion is, that it may do so, but, the tuberculous udder is not by any means the only danger of milk contamination with tubercular infection. It has been repeatedly demonstrated that cows suffering from an attack of tuberculosis so mild as not to give rise to any physical signs of the disease may be excreting from the bowels 37,800,000 tubercle bacilli per day. The slightest particle of this secretion on the udder of a healthy cow may gain access to the milk and in this way contaminate the entire milk supply of the herd. Then there is always the danger of those handling the milk having mild forms of the disease, and in that way the milk may become infected.

The extent to which tuberculosis exists among children may be judged from the following reports:

Of 2,576 post mortems conducted on children by Botz, 27 per cent. had tuberculosis, and in Eschricks' clinic in Vienna, 40 per cent. were tubercular.

Dr. McGaw, senior physician to the Belfast Hospital for Sick Children, after twenty years' careful observations and study of tuberculosis in children in connection with his hospital work, and a careful examination on exactly the same basis of the returns of The Ulster Hospital for Sick Children, Great Ormand Street, London; Royal Edinburgh Hospital for Children; Manchester Children's Hospital; East London Children's Hospital, and Glasgow Children's Hospital, presents the following significant report:

1906—Belfast Hospital for Sick Children—Number of interne patients, 827; number suffering from tuberculosis, 26.10 per cent.

1906—Ulster Hospital for Sick Children—Number of interne patients, 247; number tubercular, 30.36 per cent.

1906—Great Ormand Street, London—Number of interne patients, 2,876, number tbercular, 27 per cent.

1906—Royal Edinburgh Hospital—Number of interne patients, 1,968; number tubercular, 21.3 per cent.

1906—Manchester Children's Hospital—Number of interne patients, 1,999; number tubercular, 21.3 per cent.

1906—East London Children's Hospital—Number of interne patiets, 2,054; number tubercular, 24.3 per cent.

1906—Glasgow Children's Hospital—Number of interne patients, 1,177; number tubercular, 27.95 per cent.

The similarity in the percentage of tubercular cases in these seven hospitals is very striking and significant. Of the 11,148 children treated in these hospitals in 1906, 2,842, or 25½ per cent., were suffering from tuberculosis.

One cannot help but be impressed with the significance of the similarity in the percentage of tubercular cases in all these hospitals. This surely demonstrates the existence of tuberculosis to an appalling degree among children and at an age when milk constitutes the principle article of diet.

When we couple with this fact that of 9,303 cattle slaughtered in Leipzig, 4,048, or 43.51 per cent., were tubercular, while in the United Kingdom, according to the late Professor McPhaygden, 30 per cent. of the cattle are suffering from tuberculosis, and 2 per cent. are suffering from tuberculosis of the udder, so that 100,000 quarts teeming with virulent tubercle bacilli are being fed to the people of the United Kingdom every day.

In the samples recently examined of milk supply of the city of London, 23.9 per cent. contained tubercle bacilli. In this alone, one can readily see the solution of the startling statement made recently by Sir William Broadbent, when addressing the Council of the Invalid Children's Aid Association, in which he said: "It is a remarkable fact that while there has been a steady decrease of pulmonary tuberculosis for the past twenty years, yet there has been no corresponding decrease in the death rate from other forms of tuberculosis which are especially incident to infants and early childhood, on the contrary, they have decidedly increased.

In a recent careful examination of the milk supply of New York City, 16 per cent. was found to be tuberculous. Dr. Veranus Moor, of Cornell University, estimates that there are now 440,000 cows suffering from tuberculosis in New York State. It is estimated that if the entire army and navy of the United States was destroyed in one year it would not equal, numerically, the annual loss from tuberculosis.

In the Province of Ontario, with only an imaginary line dividing us from the State of New York, we are quite justified, in the absence of statistics, in concluding that the percentage of tuberculosis is practically the same.

With the evidence we have before us, which is only a fractional part of what could be produced, we are forced to conclude that tuberculosis is transmissible from the cow to man, and that infected milk is its most fruitful source. We must not forget, however, that there are other sources of infection through the alimentary canal; any kind of food used without being cooked, that has been submitted to the possibilities of contamination, by either human or animal tuberculosis; the use of eating from utensils that have been used by a tubercular patient and not subsequently sterilized, and numerous others.

These are some of the conditions that explain the comparative frequency of this disease among children in countries where milk is used to a very limited extent, in such countries as Japan, China, Greenland, the Phillipines, Turkey, Sicily and Sardinia. Among these people the infectious character of this disease or any knowledge of hygiene or sanitation is known to but a fraction of the entire population.

We especially emphasize milk because it is subjected to greater dangers of contamination and infection than any other article of diet, it affords an excellent culture medium, the presence of germs in thousands to-day means millions to-morrow. Furthermore, milk constitutes, or should constitute, the principle article of diet in infancy and early childhood, and is the most valuable single article of diet we possess. If people knew a little more of the value of this food they would be more interested in the source and methods of its production. For instance, one quart of good, fresh milk is equivalent in food value to one pound of beef or three-quarters of a dozen eggs or from one to two dollars' worth of oysters, and more valuable than four or five gallons of beef broth or beef tea; and in addition to this, when we take into consideration that in most public institutions the cost of cooking and serving the food is greater than the cost of the food itself, the economy of milk as a food is made quite apparent.

To what extent, then, is a child in danger of contracting tuberculosis from milk?

1st. Tuberculosis exists to a great or less degree in all herds that have not been submitted to the tuberculine test and from which the infected cattle have been removed.

2nd. Bovine tuberculosis is transmissible to man, and especially to infants and young children.

3rd. That tubercular disease exists to a large extent among infants and young children and at an age when milk constitutes the principle article of diet.

4th. That whatever the portal of entry to the human body it eventually gravitates to the lungs.

Remedy: Segregate or destroy the cow, and in the meantime pasteurize the milk.

EDUCATION IN HYGIENE—A MEANS TO PROTECT THE HOME AND HOUSEHOLD FROM TUBERCULOSIS.

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Before entering into a discussion on the value of Education in Hygiene in the prevention of Tuberculosis, we must first study the relation of hygiene to the tuberculosis problem. Before we can value the teaching of this subject to the pupils of our public and high schools, as well as to teachers-in-training, we must know something of the various methods whereby this disease is received into the system, as well as some knowledge of the course of the disease after its entrance.

I need not say much of the disease itself. Tuberculosis may be defined as a communicable disease due to the presence of a low form of vegetable life, the tubercle bacillus, a disease which may run its course in a few weeks in its acute form, or may be present for many years. It may remain quiescent for a number of years and then break out afresh. It may attack one or a number of organs. It may spread gradually from one organ to another, or may involve several at one time. Its most common form is tuberculosis of the lungs or pulmonary consumption; unfortunately, this type of the disease needs no description—few families, indeed, can say they have lost no relative from this cause. From one-third to one-quarter of the deaths at the ages 15 to 45 are due to pulmonary consumption. Almost any organ in the body may be the seat of the disease. Let me only recall to your minds that white swelling of the knee is due to tuberculosis, that hip-joint disease is usually tuberculous, that other joints are frequently the seat of the disease. The bones, too, may be affected, a most common form is the so-called Potts disease of the spine. The larynx may be diseased—consumption of the throat. It may be present in the ear, the eye, the skin, the brain and its coverings, tuberculous meningitis, which is almost always fatal. The kidneys, the bowels and other abdominal organs are frequently the seat of the disease, while in children the abdominal glands, and the peritoneum—tuberculous peritonitis—are comparatively common sites of infection. In childhood, the glands in the neck and elsewhere are often enlarged from tuberculous disease, they not infrequently suppurate and discharge, leaving unsightly scars.

The last Dominion census shows tuberculosis to be the most prevalent disease in Canada. In 1901 there were nearly 10,000 deaths from this cause. With our rapid increase in population, there must have been last year over 12,000 deaths in Canada. One in eight of all deaths in the Dominion are due to tuberculosis.

A recent table based on Prussian statistics shows that there is an increasing percentage of deaths from tuberculosis from year to year in childhood.

	Deaths from tuberculosis per 100 deaths from all causes.	
In Year.	Male.	Female.
0— 1	1.61	1.60
1— 2	4.46	4.55
2— 3	5.84	6.48
3— 5	6.44	7.41
5—10	9.26	12.02
10—15	18.65	29.74

The table shows a sudden increase beginning at the fifth year, and points out that during the school period there are factors which increase the probability of the child dying of tuberculosis.

We are not to conclude, of course, that because a large number of children have tuberculosis at the age of school attendance that the school plays an important part in the propagation of the disease. It is probably a small factor, indeed, and we must look elsewhere for the causes of this increase in deaths.

To study these causes we must arrange our knowledge,

(1) Of transmissibility of the disease.

(2) Of the means of transmission.

(3) Of the modes of infection, or reception into the system.

(4) Of conditions which retard or increase the progress of the infection when received.

(1) The transmissibility of the disease has been definitely proven; there is no true tuberculosis without the presence of the tubercle bacillus, and any person or animal suffering with the disease must have received it directly or indirectly from some other infected person or animal.

Hence, if we could control all those infected the prevention of transmission could be readily effected, and the stamping out of the disease would be, in the light of our present knowledge, a comparatively simple procedure. Education of our people is necessary to secure even a start in this work. Some of our enlightened legislators have for some time been endeavoring to place a system of private notification of this disease upon our statute books, but even the approbation of the Provincial Board of Health has not yet been sufficient to overcome the hostility present in the legislature.

(2) The means of transmission from the infected person are many, and they need not be detailed here. It is sufficient to say that the discharges from the affected organ usually contain the bacilli in enormous numbers, and that for example, the expectoration of a patient with pulmonary consumption may contain many, many millions in each twenty-four hours. The discharges from other organs, from abscesses, etc., may be sources or infection, also the flesh and milk of tuberculous animals.

(3) The modes of infection are three—(*a*) the inhalation of bacillus laden dust, or of moist particles in the neighborhood of a

careless consumptive; (*b*) the ingestion of infected food or the swallowing of dust and other bacillus laden impurities; (*c*) through the skin.

It is probably that(*a*) is the most important method of infection—at least we have been taught this until recently, when investigations seem to show that (*b*) may not be an unimportant factor. At present we cannot say which plays a greater part, hence, our hygienic measures must be such as to lessen the possibility of either of these modes of infection.

Skin infection doubtless plays an unimportant part, the unbroken skin forming an impenetrable barrier to entrance of the infecting bacilli.

Inheritance, that is congenital or pre-natal tuberculosis, is so rare as only to be mentioned. In practically all cases infection occurs after birth.

(4) Fortunately for us, infection of the system, or reception of bacilli in the body does not necessarily mean disease. Our bodies are provided with a very delicate protective mechanism, and the protective forces are such that in health they readily respond to stimulation, so that when an invading host of bacilli appear there is an immediate attempt on the part of the body to oust the invader or to render his attack futile.

Of these four factors in the causation of the disease, (1) should be known to all—it should be a fact of general knowledge, (2) should be known by all, and is especially important for the patient himself, his physician and nurse, upon whom lie the responsibility of rendering impossible all spread from this focus. (3) Should also be common knowledge, but will be of little service in protection other than as it relates indirectly to the knowledge that milk and other food may be infectious. (4) Relates to the individual himself, and to a greater or lesser extent, depending upon circumstances, we are in a position to increase or lessen our resisting power to this and as well to other diseases.

Our knowledge of the life history of the tubercle bacillus teaches us that the infection is usually a house infection—including in this, workshops, offices, factories. Sunlight and fresh air destroy the virulence of the bacilli in a comparatively short time. Hence, dust out of doors is not a probable source of infection, but if a factor, operates only indirectly, through its action as an irritant when inhaled, leaving the delicate mucous membrane of the respiratory tract less resistant to infection in the house.

In dark, ill-ventilated rooms and corners the bacillus may live for a long period of time, at least a year, perhaps longer. Upholstered furniture, carpets, draperies, heavy curtains, closed window shades, all tend to retain and prolong the life of any bacillus present, whether that of tuberculosis or of other infective disease. The bacillus may be present in the room through the carelessness of an untrained consumptive, or living virulent bacilli from recent expectorations upon the street may be brought in on boots or on trailing skirts. When introduced, the absence of light and ventilation keep the bacillus capable of growth and multiplication whenever an opportunity for implantation occurs. Walking over such a dirty floor or carpet will keep the infection in the air, while dry sweeping will stir it up even more.

Children are very susceptible to infection, and what can offer easier infection to the creeping infant or young child than the dirty floor—perhaps not visibly dirty—which is his playground, particularly when we remember with what punctiliousness every plaything picked up has its turn in his attempts to put it in his mouth. Spitting upon the floor of the house, workshop, factory, office or street is, then, a great factor in the propagation of the disease, and many cases could be quoted illustrative of this fact.

The indiscriminate kissing of infants is to be deplored. The child is the one most concerned, and would doubtless be quite willing to forego the pleasure.

We must recognize, then, that hygiene in the home is a very important factor in the prevention of tuberculosis. We cannot readily prevent the lodgment of infectious matter in the home, but we can readily render it innocuous by proper ventilation and the admission of light, and the principles of sanitation should be widely diffused.

I have said earlier that the disease may enter the body and for a period of time remain quiescent. There is much evidence pointing to the possibility of infection being frequently received in childhood, lying latent as a tuberculosis of the lymphatic glands, without symptoms of any kind, only to break out in youth or in adult life as an active progressive tuberculosis due to temporary lowering of bodily resistance. We do not know just what proportion of tuberculous diseases which appear in later life, are due to infection lying latent since childhood, received then through playing on infected floors, through tuberculous mothers or nurses, ingestion of tuberculous milk, or in other ways. Yet this appears to be an important method of development of the disease.

We know too, that tuberculosis has a tendency to heal or become quiescent, as instanced by autopsies made on bodies of persons dying of various diseases. 40 to 50 per cent. of people dying in Canada show evidence of tuberculosis—usually healed, but we also know that in the person who has made an apparent recovery from his tuberculosis a prolonged period of debility, or an acute infectious disease will often cause the disease to become again active.

It is then to a marked degree a disease of debility, whether that debility be from disease, dissipation or the hardships of life.

Here, then, is a great field for the teaching of hygiene. Let us consider some of the causes of debility. A very frequent cause is poor ventilation in the house, particularly in the sleeping room; a foul, ill-smelling sleeping room will cause the inmate to waken tired and unrefreshed, though he sleeps heavily, due to the vitiated atmosphere, yet thinks his sleep must be refreshing because so sound. It is but a mild stage of asphyxiation.

The general sanitation of the house is important, and on this I need not dwell. These two factors are also important in the propagation of other diseases, which in turn predispose to tuberculosis or may cause a latent tuberculosis to become active.

The teaching of hygiene cannot overcome the difficulty of insufficient food; but it can be of assistance in teaching the principles of regularity at meals, of proper food, and proper methods of eating, and much debility may be overcome or prevented in this way.

That due to lack of sleep and of rest, irregular hours, overwork, fatigue, and prolonged exertion, is frequently found to be a factor in the production of tuberculosis. This is a field covered by hygiene in school.

In France, the leading men in the crusade against tuberculosis say that they will be unable to make material progress until the evil effects of alcohol are lessened. The man addicted to alcohol has much less chance of recovery than the non-alcohol using consumptive—here, too, the teaching of hygiene is important.

Recurring colds frequently precede the development of tuberculosis. Instruction in hygiene can do much to ward off these and other catarrhal affections through proper clothing, avoiding chilling after over-heating, the prevention of draughts, the proper temperature of rooms and halls in school and elsewhere. Avoidance of dusting and dry brooming in the presence of children or in the morning previous to opening school. Correct carriage of the body should be taught.

Through proper breathing exercises many children with poor chest formation can be developed and made more resistant to disease, and though this subject may more properly be discussed under medical inspection of schools it may very properly be referred to here. The same may be also said of nasal obstruction. Though this is to be discovered and dealt with by the medical inspector, the teacher in giving instruction in proper physiological breathing will readily discover defects in breathing, and nasal obstruction is associated with pulmonary disease sufficiently often to require it to be mentioned here.

Sufficient has been said to indicate that in many the prevention of tuberculosis is a question of increased resistance through the influence of proper nutrition.

I do not think that the value of lessons, of higienic science can be over estimated. As relates to tuberculosis directly, some knowledge should be imparted as to the nature of the disease and methods of transmission, inasmuch as it is our most prevalent disease. The teaching of the proper disposal of expectoration relates as well to influenza and numerous other diseases where the discharges from the mouth and respiratory passages are concerned in the spread of the infections.

Indirectly, the teaching of proper habits of mind and body has a great influence on the development of this and many other diseases. The pupil should be taught not only the value of ventilation, of light and of cleanliness, but the harmful effects which are produced by alcohol, by smoking during the years of growth, by over-indulgence in sports, particularly in arduous feats and sustained exertion. Late hours and various forms of over-indulgence are to be commented upon, and the youth must be impressed with the necessity of prolonged and regular sleep in the development of sound health.

A healthy interest in proper out-door sports is to be encouraged. We must remember that athletes seem particularly prone to develop tuberculosis.

In the crowded curriculum we cannot ask that a great deal of time be paid to the subject of tuberculosis, but a few of the essentials can readily be taught and impressed upon the minds of the pupils. Then, too, what applies to tuberculosis applies in a broad way to many other infectious diseases, and let us remember all hygienic measures resulting in improved health of the body and better balance of the mind, the developing of a normal healthy organism, and every measure which makes for a higher standard of living, will have its effect in the lessening of the mortality from this too prevalent disease.

May I quote from Florence Nightingale's Notes on Nursing, with some changes to meet the subject in hand: "Oh, Boards of Education, men and women of Canada, do you not know that one in every eight in this land dies of tuberculosis? That this is a preventable disease? That its prevalence increases with great rapidity during the years of school attendance? Is all this suffering and death necessary? Or is it better to learn music and algebra than to learn the laws which subserve the preservation of life?"

THE LIFE OF OUR YOUNG NATION.

SIR JAMES GRANT, F.R.C.P., LOND.; K.C.M.G.

The conditions of life at the present day call upon each and every individual to enquire carefully into the laws of health, in order to know how life can be protected, and thus prolonged into a good old age.

Our ancestors were long lived, for the reason, that they lived more in the country, in free and pure air, in the midst largely of agricultural operations. To-day, we cannot fail to note the intensity of life in city surroundings, shops, factories, underground sweating establishments, confined and sedentary, all of which are a tax on physical and mental energy. The great manufacturing centres, such as Manchester, Liverpool, London, Sheffield, as well as the thickly populated outskirts of New York and Chicago, demonstrate a well-defined want of vitality, in the pale faces, spare frames, indicative of the varied tests of strength and energy, to which such classes have been subjected. A great deal of such conditions is the outcome of causes which might be obviated by even a moderate knowledge of the laws of health. The hygienic laws of *Moses* exercised a powerful influence on the masses. The Egyptians and the Greeks made physical as well as mental education a science, and in fact, a source of careful study.

Cleanliness is next to godliness, and in keeping with the laws of advanced sanitary science. Hence, the great importance of the closest possible attention, not only to ourselves, but as well to our homes, our clothing; the purity of the water we drink, and the air we breathe. It may be said of many an invalid that *ease* was the *chief disease.* Health is a quality of body difficult to define. As Premier Balfour stated (Presidential Address, British Association, August, 1904):

"It is to be remembered that the physical constitution of a nation, and its power to become and to remain great, depend not upon its ethnological origin, but upon the physical and climatic conditions under which its individuals live, and the moral and mental aspirations by which they are led."

My present object is to point out how individual health may be secured, and how a reasonable measure of health may be attained in the life of the most ordinary indivdual, inasmuch as the number of years is not as important as the physiological age of the person. The epochs of sanitation in the past and present world's history are well defined. The *Hebriac Epoch* of personal sanitation, according to *Levitical laws,* and the *laws of Moses,* for the guidance of daily life. Second, the "Roman Epoch," municipal sanitation, owing to which the great water supply of Rome was developed and carried successfully into operation. Next, in succession, the era of International Sanitation, as worked out in Havana, by military, medical and sanitary officers, of the American Republic, transforming that formerly pest-stricken city to a position of health, comfort and happiness.

Within the past twenty-five years, all along the line, a great advance has taken place in sanitary science as taught in our colleges and schools, guarding, guiding, and protecting the lives of our people, by advocating the gospel of preventive medicine. The maintenance of the health of the individual is the chief requirement of the healthy growth of the State. To-day, in each of our Provinces in Canada, the Boards of Health are accomplishing a good work, the practical results show quite a marked change in our general death rate.

During the past half century preventive medicine has accomplished much to alleviate suffering and prolong life. In the 17th and 18th centuries the death rate of the civilized world ranged from 50 to 80 per 1,000. To-day in London, Berlin and New York, it averages between 17 and 19 per 1,000, chiefly due to protection from infectious diseases during the first five years of life. The expectation of life at birth in New York in 1886, according to Dr. Biggs, Health Department, "was only a little more than 25 years, while in 1903, according to the death rate of that year, it almost doubled, and equalled about forty-two years, the result of hygiene measures and searching investigation in laboratories. Pasteur and Koch applied the light of science to preventive medicine and counteracted the onset of disease by sanitary regulations, suppressing the conditions favorable to the propagation of pathogenic bacteria, and protozoa, and the use of specific vaccines, serums, and drugs, truly prophylactic in character.

Woman's work in Sanitation is a remarkable evidence of her efforts for good. The Women's Health Protective Association. of New York, is an undoubted advance in the science principles of health. Bakers' shops, slaughter-houses, play grounds, public parks, school hygiene, all in turn receive careful inspection. The children of the nation are the physical capital of the future, and cannot be too safely guarded.

The medical inspection of schools, according to Dr. Kerr, of London, is well received in England, by the Medical Department of the Educational Committee, of the London County Council. The school doctor has been slowly, but surely, taking root on the continent for many years. Within five years, Germany now has, no less than 676 school doctors, appointed in 234 towns and districts, and the regulations for medical examination of school children, approved by the Minister of Education. In Switzerland, Austria, and many European countries, like energetic action has been taken. The London School Board appointed a medical officer in 1891, and the Bradford School Board in 1893, whose chief duty is regular school visitation; and the other large towns are now moving in the same direction. Recently, the Inter-Departmental Committee of England, on the Model Course of Physical Exercise, reports that, no form of educational organization can be considered to be complete, which does not make provision for the systematic reference of questions of school hygiene, and the special treatment of individual scholars, to medical experts.

The systematic medical examination of school children in Canada has been under consideration during the past year or two, in which, so far, there is evidence of success. In the county borough of Blackburn, England, the recent report of Dr. Alfred Greenwood, Medical Officer of Health, has attracted widespread attention. Of 328 school children examined personally, no fewer than 54 were suffering from tuberculous diseases. It is a serious state of health, that out of 338 children taken at random for examination, 34 should have pulmonary consumption. Such statistics will doubtless prove a surprise to many. The fact that young children are generally not supposed to suffer from pulmonary tuberculosis, may account for such states of the system being passed over, in a casual manner. Most important points in the early discovery of lung diseases are, separation from children in health; careful inspection from time to time of those who have been exposed to the disease, and most thorough enquiry into the standard of living, in the residences of those diagnosed as consumptives. In Boston, to-day, a medical man is employed in Educational Institutions, where he performs the duties of medical inspector for an hour each morning. In the case of public health, the interdependence of sanitary and medical sciences, and engineering, cannot afford to be separated, inasmuch as they are a powerful help to each other, and an undoubted evidence of progressive development in the line of hygienic principles, almost universally accepted in civilized centres. Plumbers should be specially educated, and licensed, as the escape of sewer gas has developed scarlet fever, diphtheria, puerperal fever, blood poisoning, sore throat and even pneumonia.

Pure air and sunlight are first-class disinfectants, and as a vital necessity in every household, their importance cannot be overestimated. Success in life depends more on ourselves than our circumstances. "More men have ruined themselves, than have ever been destroyed by others; more houses and cities have perished at the hands of man, than storms or earthquakes have ever destroyed."

According to Lord Avebury, the first ingredient of a good talk is truth, the next good sense, the third good-humor, and the fourth wit, and the first three are in the power of anyone. In ordinary conversation, what is more common than the state of the weather? Let us hope that the next most interesting subject will be public health. How many have fallen victims to a life of indulgence, and complain of the world, when actually they have only themselves to thank for it. "I am young," said Dr. Musset, "I have passed but half of the road of life, and already weary, I turn and look back. What a grand gratification it must be to look back with thankfulness, and forward with hope."

As Tennyson has charmingly expressed it:

"'Tis life, whereof, our nerves are scant,
Tis life, not death, for which we pant;
More life, and fuller, that I want."

Food. In the ordinary acceptation of the term, to even talk of any person dieting, leads to the idea of a defect in the system, which requires remedying. By a dietary, we mean that amount of food, which will keep an ordinary individual in good, robust health. This subject will stand the most careful enquiry, and amply repay the reward of labor, in that direction. Mental laziness is really not uncommon with the masses, who in a great measure, accept facts, without personal enquiry, and in no line is such more evident than in the food supply of the system, in fact, the science of nutrition is still in its infancy, and why should such be the case, when "food is that which builds up the body, and furnishes energy for its activities."

Food supply is the controlling factor in life, animal and vegetable alike. In the list of food materials, oatmeal is not surpassed, as a producer of physical power. It, in fact, produces more muscle, and better muscle, than beef steak.

"Food is the only source of human power, to work, or to think," and extends to all alike, young and old and really the chief source of danger to the system is more in quantity than quality, as it is now a well known fact, that more people die from *over eating*, than from *under eating*, or alcohol.

The prospect of long life depends greatly on the manner in which life has been cared for and protected in the stage of childhood. In this stage, the very corner stones of future strength and constitutional development are placed, so as to build up and construct tissue possessing the elements of vitality. Pure milk, sterilized and pasteurized, is what the infant requires as an article of diet, and particularly mothers' milk, entirely free from disease. Society life contributes largely to the artificial plan of bringing up children, not in keeping with the laws of nature, and contrary to the very principles of common sense. Digestive power should be largely regulated by the condition of the teeth; wanting in infancy, calls for liquid diet, and in advanced age, the quantity and quality of food must be carefully guarded. Man frequently treats the stomach as if a machine, and under the impression that will power, is equal to any irregularity. Food for school children is only second in importance to that for the infant. Scrap diet, at this particular time, is really not fit, is not suitable for mental development. So also with the University student, the nutritive material should be equal to the requirements of the system. At meals, the business of life, should subside for the time being, as when the digestive nervous power is off in another channel, the whole system suffers more or less, and more especially, as it is a well known physiological fact, that the brain, digests more than the stomach.

Sir William McEwen, (Huxley Lecture, London, October 8th, 1904) makes the following statement:

"The standing lunch, eaten against time, while the mind is fully occupied with business or professional examination—the food instead of being chewed and mixed with saliva, being simply washed down as a bolus with some fluid, is one of the best ways of not only producing indigestion, but of ultimately causing caecal and appendicular mischief. Man has neither a crop like a bird, nor a caesum like a horse, and, therefore, he has no provision for bolted food. One has heard of children being forced to take food which they dislike, because 'it was good for them.' The digestive juices will not flow under these circumstances. The brain of children is so often burdened with 'tasks' committed to memory, and engrossed with educational enigmas, that there is no time for digestion. Mastication is not taught in schools, digestion has no place in national education, and there are no certificates given for sound digestion, but we appoint Royal Commissions to inquire into the causes of the physical deterioration of the race."

Food adulteration should be guarded against, and food preservatives, such as salicylic acid, and boracic acid, harmful to the very structure of the stomach. Adulterated foods, are to-day, a subject of careful analysis, by the proper authorities, a right move, in this age of scientific progress.

I recently learned from Dr. Rutherford, Veterinary Director-General, Ottawa, that as to meat inspection, no less than 67 Veterinary Inspectors were at present engaged in that important duty, and 12 Lay Food Inspectors, also 147 Veterinary Inspectors of the health of animals.

The evils of high living are decidedly bad, and certain to lead to serious results in time. There is much to be hoped for in this enlightened and progressive age. Its influence on a requisite simpler life is slow in coming. Punch once called attention to the "Starving Doctor," who at present time would soon come to grief for the want of patronage. The evils of high living are decidedly bad for the youth, as well as the adults. Debility from want is greatly different from debility from actual failure of the digestive power, the result of over work, in the effort to get rid of the excessive amount of food, an over plus at each meal.

A Dumfermline doctor stated, whose practice was chefly among *navies*, that they were usually worn out at 40 years of age, and at 45 scarcely known. Had they reduced their food considerably, such results would not have taken place, by a simpler and restricted diet. It is well known that the digestive organs get weak, with the rest of the body, and that advanced age entails less demand for food, and at this stage in life's drama, artificial teeth, according to Sir Henry Thompson, frequently dig the owner's grave. It is by fair play from the commencement of an ordinary life that man is likely to reach a good old age.

According to St. Paul, "They that strive for the mastery, are temperate in all things."

It is a well known fact that high living is fatal to good shooting. When one is engaged in any mental strain, less food should be taken. Three celebrated men, Sir Isaac Newton, Napoleon, and the Duke of Wellington, when engaged in some great problem in science, or war, took little food until the strain was over. General Crockett, who was with Wellington in the Peninsula, stated that when a long menu was presented, he would run his finger down to the pudding, his chief diet for the occasion.

Sir Erskin May, once a great worker in the British House of Commons, attributed his good health to the fact that he took a chop in the middle of the day, and only a cup of tea at night. Lord Palmerston followed the same plan, and like many other great men, could enjoy a full dinner on particular occasions. The way of life, yes, long life, is narrow, the other broad, few walk in the one, and many in the other, the attractive, the telling path of a simpler life

"A cultivated taste in food is as much needed, or even more than a cultivated taste in amount. Just as in furnishing a house, it is not the money spent, but the good taste in the arrangement of the whole, as well as in the choice of the individual articles, so in food for the table, it is not the money spent, but the sort of material purchased, and the way it is treated, after purchased, which determines the effectiveness of the expenditure." (Cost of Food by Miss Richards.)

Many will say that they would rather live a shorter time, and enjoy the years they have. But such enjoyment is of a varied character, dignified by stiff joints, irritable mind, frequent mistakes in family life, and business, followed by nervous depression, and mental break downs, as the result of want of care and prudence, in the fundamental laws of life.

"If you wish to be well," said Abernethy, "you must live on six pence a day, and earn it yourself."

Some years ago, when on a visit to Lake Winnipiseogee, New Hampshire, I had the plesaure of an interview with the poet Whittier, who was rusticating at the charming spot, where originated a considerable share of that gifted poetic imagination, which has given him a world wide reputation. He remarked he was not married, began life as a shoemaker, and afterwards turned his attention to the more congenial line of literature. He never tasted alcohol. He felt almost quite alone, as all his old friends and associates were gone, except two, Dr. Oliver Wendell Holmes and Lowell. Since that date, all three have passed away, and are now entombed amidst the illustrious dead, of the great Republic. Whittier's life history is an object lesson, temperate and simple, all the way through, and attained a good old age.

At the present time, there are few influences of such wide and far reaching effect, as arise in many directions, from the use and abuse of alcohol. Alcohol and crime, alcohol and lunacy, alcohol and poverty, have a remarkable affinity. Fully twenty per cent. of accidental deaths are due to alcohol.

In 1886, Dr. Mitchell estimated that the drink habit in America reached the enormously high figure of $1,000,000,000 = £200,000,000. In that particular, the British Isles are not far behind. The total expenditure in 1908, was £161,060,462. To-day it is most gratifying to observe the vast change for the better, the result of your enlightened and far seeing people, who are doing their utmost to suppress this traffic in alcoholic liquors, in this rich and prosperous country. The drinking habit is wide spread in its character, and few who follow persistently in that path, will attain old age. I feel confident the time is coming when common sense people will assert themselves, as to the solemn duty to be performed, in this trying direction. Intemperate agitation cannot accomplish practical results. The brick and mortar of the human frame are not held together by alcohol. It quickly and gradually undermines the vital forces, and establishes foundations of disease, of an undoubted character. The general opinion at the present, of close observers, is, that alcohol as a beverage is decidedly on the decline, and fashion is becoming a powerful factor, in that common sense, and life prolonging direction. Public gatherings are now celebrated, more and more, with the use of tea, coffee and mild beverages. What a subject of congratulation, such changes in the drink habit, are taking place. What can possibly be more desirable, when we consider the remarkable statement of Dr. Norman Kerr, of England, that of the 260,000 deaths occurring amongst children, below the age of five years, 65,000 are directly or indircetly due to intemperance, and alcohol is the *undoubted sinner.*

According to Sir Henry Thompson (a once acute observer in this line of action), its evil effects are chiefly on cellular structure, it paralyses the activity of the cells; prevents their growth, retards their renewal, and in fact hardens the protoplasm. Alcoholic liquors should not be given to children. Their nervous system is more sensitive, and their bodies contain a large proportion of young, growing formative cells, which will be destroyed by alcohol. It is not only injurious to the young cells of youth, but as well, destroys gradually, the new and young cells of maturer age, and thus degeneration, and decay, of bodily tissue is brought about. The continued use of alcohol is attended by the same physiological results, and permanent structural injury is certain to follow. The moderate use, or even the reverse, will in time be followed by damage to the system, of a more or less serious character.

Alcohol in the stomach becomes a regular "*Dog in the Manger,*" not capable of building up the body, and prevents the solution of those substances intended to nourish, build up, and repair the wear and tear of the system. By great energy and perseverance the slave traffic was conquered, and, let us fervently trust, the day will arrive when you will conquer the *Liquor Traffic.*

Alcoholic beverages do not aid digestion, but retard and actually prevent the solution of food, for the time being. True, liquids are agreeable to the human system, and in fact, to most people alike. They exhilarate, they remove depression, they lighten pain, they make glad the heart, and foster conviviality and good fellowship. All such, however, is temporary in character, and certain to produce a telling result on the system. Alcoholic drinkers are by far the most subject to epidemic diseases, and with a lessened prospect of recovery. The arctic explorers, Rae, Kane, and Nansen, required no alcohol for their crews, all of whom returned, enjoying the best of health. As a medicine, in emergency, its therapeutic value is of importance. The liver, brain, and kidneys, are said to receive the largest percentage, and consequently, the most likely to develop disease, as the result of excessive use. Thus, at a glance, we see how life may be shortened. On the other hand, it is now an established fact, that those who never use alcohol, live the longest.

Dr. Christopher William Hufeland, of Jena, in 1797, published an admirable work, his chief object being, on systematic grounds, to establish the art of prolonging life. He condemned strongly the use of alcohol, and commended and recommended total abstinence from intoxicating drinks, as an undoubted means of lengthening life. Fortunately, there is to-day springing up amongst the members of the medical profession, a truly wise system of prescribing, not only abstinence in regard to alcoholic drinks, but abstinence also in diet, the very foundation of a simpler life. In fact, the advanced scientific physician endeavors to persuade sufferers to gradually let themselves down, to a natural proportion of food and drinks, certain to be attended by the happiest results, when faithfully followed.

The work that can be done during entire abstinence, is superior in every respect, in amount, in readiness of effort, in quality, in mental ease, and happiness, to that which surrounds the indulgence in alcohol, which neither gives strength, nor maintains it. It lessens strength of will, and determination of character, both of which are required to overcome the habit, once developed.

What a sad plight to be placed in, the inability without restraint, to conquer such a latent desire, certain to be followed by serious results, if persisted in, and the long continued habit of taking alcohol engenders the appetite, which, once established, actually requires more than ordinary courage and strength of will to vanquish.

To-day, woman is one of the most powerful factors at work, and no longer content

"To guide the spindle, and direct the loom,"

but also to take an energetic part, in counteracting such sad and trying influences, destructive to fame, name, reputation and honour.

"When Satan cannot go in person," says an old Jewish proverb, "he sends wine."

"Once the demon enters,
Stands within the door;
Peace and hope, and gladness
Dwell there never more."

Shakespeare charmingly expressed condemnation of drink:

"Oh that men should put an enemy in their mouths,
To steal away their brains, that we
Should with joy, pleasance, revel and applause,
Transform ourselves into beasts."

These are the principles involved in every-day life, and too much cannot be said in correcting wrong ideas, and wrong impressions, which, when permitted to exist, cannot fail to bring about constitutional trouble, that would certainly, in time, shorten very considerably, the expected term of life.

Fortunately, on both sides of the Atlantic, labor leaders have a direct thought for the better moral condition of the working classes. Clubs, such as the well-known Hollywood Inn, at Yonkers, N.Y., are being formed, and attended by the most practical results as far as withdrawal from alcoholic beverages are concerned, and the development of the principles of comfort and happiness, in keeping with a simpler, a temperate, and a longer life.

Our Governor-General, Earl Grey, took a most active part in England, with Lord Goschen and Cardinal Vaughan, in the formation of "The Public House Trust," in towns and counties, aiming at respectable places of refreshment, favoring non-intoxicants rather than intoxicants, which has had most practical and telling results. This is a progressive move, and should be given a fair trial in Canada, in preference to the introduction of sudden temperance measures.

In 1846, "The World's Temperance Convention" was held in London, supported by leaders in this great cause. More than half a century has passed since that great event, and some remarkable changes for the better have taken place. There is still room for action in this age of enlightenment and progress. From all parts, distant and near at hand, from land and sea, from river and mountain, there flows a tide of evidence against this *poison* of all *poisons*, sufficient to stir to action the deepest feelings of humanitarians to still greater activity, in promoting the very best interests of our race, by temperance in the widest acceptation of the term, *a good and noble work.*

In child life, the foundations for the future, as to growth, development, and general strength of system, are laid down. The home and the school are interdependent, as to the strength of the system, as well as in intellectual development. Manual training, industrial training, and technical education, are gradually being carried to the front, and such education certainly tends towards practical results, and the attainment of a good old age.

Professor Sir Michael Foster, in his "Rede Lectures" stated, "If there be any truth in what I have laid before The Royal Society, the sound way to extend the limits of brain, and muscle, is by encouraging the humbler helpmates, so that their more efficient co-operation may defer the onset of weakness."

Games, like walking, promote physical development and general health, but should not become the *business of life.* Physical vigor, and mental activity, are closely allied. Lincoln, Conkling, and Gladstone, retained considerable physical power, rail splitting, boxing, and tree felling, and so with Tennyson, Beecher and Huxley, each had his time of physical training, as well as mental culture. Muscular exercise is not really a matter of secondary consideration, but a reliable adjunct of "long life."

It is fortunate the reign of bone and muscle is not over, or the reign of brain and nerve being supplanted. A moderate degree of "Mental cold storage," would at any time correct erroneous impressions in this direction. Success in science, or in the ordinary affairs of life, cannot be accomplished without the "Master word--

Work,'' and such work, energetically applied, in the lines to which I have invited your attention, would be followed by results of a telling, and most practical character, as to

> "What shall we eat, and what shall we drink, and
> where with all shall we be clothed.''

All of which are closely associated with "The Life of our Young Nation.''

In conclusion, I am pleased to state, there is no subject at present requiring closer attention on the part of public authorities, as well as of our young nation, than "The North American Conservation Conference,'' and the principles defined. The people on both sides of the "Boundary Line,'' are equally interested in natural resources, and it is gratifying to note the important place assigned to public health. The pollution, mainly by sewage, of streams, rivers and lakes, is an undoubted danger to health of man and beast. Such fertilizing elements, if turned to practical account, would save thousands of valuable lives, victims of typhoid, tuberculosis, and other diseases, and reclaim vast areas of barren lands. The greatest of our national assets is the health and vigor of our people, and how can such conservation be carried out more successfully, than by the education of our young nation, in these lines, so as in the near future to guide and direct, in every possible way, the best interests of our Dominion.

MANUAL ARTS SECTION.

CONNECTING THE KINDERGARTEN AND MANUAL TRAINING.

EDWARD FAW.

It is not with any feeling of special fitness, but rather that of inadequacy to the task that the writer undertakes the consideration of so important a subject as "Connecting the Kindergarten and Manual Training." In fact, the more thought he gives the subject the more he feels that radical changes should be made, not only in the subject matter of the schools, but in the method of imparting it.

Much of the work of the whole school course is remote from the real interests of childhood and youth. I want that we shall forget for the moment our traditional school, to consider the life, activities, and interests of the child before he enters it. He is free, full of life, constantly moving, exploring everything and everywhere. He is a happy companion of nature. He sees the older members of the family at their work and wants to assist. He is an imitator, wanting to do as others do. He wants to carry his own pail of water, sweep with his own broom, build his own house. drive his own horse, and plant his own garden.

It is in this free and natural life that he gets intimate acquaintance with nature at first hand, with real materials, their properties and uses, and learns how to manipulate them. There is continual training of observation, of ingenuity, of constructive imagination, and of good judgment.

As a member of the family or community he aims to contribute his share towards its comforts, and maintenance. He recognizes his dependence on others, but develops the consciousness of his own power and usefulness in the social unit.

The time is not long past since the child and youth took a larger share in the work of the community than he does now. Not only did he participate in the preparation of the soil, the planting of the seed, the cultivation of the plant, the gathering of the harvest, but in the manufacture of the tools and implements needed to carry on the work. He aided in the rearing of the sheep, the shearing, the carding of the wool, the making of the loom, spinning the thread, preparing the dye and weaving the cloth. In short, he knew by experience and observation all raw materials, the processes of their manufacture as they met the needs and contributed to the comfort and happiness of the home.

But, in a generation or two the conditions have largely changed. The child's environment is different. With the multiplying of labor-saving machines, the specialization of labor, the influx from the country to the city, the centralization of industries, the establishment of large factories, the rapid transportation, and the harnessing of the great forces of nature, dawns a new day for the youth. A contractor builds the house, the dealer brings in the furniture, the grocer provides the food, the butcher the meat, and the merchant the clothing. Everything arrives at a few minutes' notice, completed. Nothing requires to be made.

Now, these changes mean a loss to the child. We have furnished little or no compensation for this loss in our public education.

Let us examine our treatment of the child. At the age of five or six he must go to school "to learn." The school assumes that he knows nothing, that his mind is almost a blank. He is taken from the home, the fields, the garden, the playground, and compelled to spend the brightest hours of the day, trying to memorize the meaningless symbols of knowledge. He enters the school, a new world, and leaves a brighter, freer, and more attractive world outside, the experiences in which are valueless now. What a waste his former years have been. The great waste comes from his inability to utilize the experience he gets outside the school in any complete and free way in the school itself. While on the other hand, he is unable to apply to his daily life what he learns at school. The school is too much an isolation from real life. When the child gets into the school room he has to put out of his mind a large part of the ideas, interests, and activities that predominate in the home life.

Happy the child whose good fortune it is to enter the kindergarten, where remains some relation with previous life, where former experiences count for something. Not elsewhere in our school course is there such freedom, naturalness, and appeal to inherent interests as in the kindergarten. The child's love of activity finds expression in marches, motion songs and games. His social instinct is gratified with the fellowship of his companions; his interest in color and form shows itself in the selection of ball, or yarn, or splint, cube, or sphere, and his constructive imagination finds free play with his gifts in making fences, chairs, houses, and churches, or in representing former experiences. Yet these activities prompted by self-interest are not mere play; for play has no worthy ultimate aim. They are not a waste of energy, but are directed along channels leading to useful ends. Here he learns through sight and touch the qualities of things. Without accurate acquaintance with the visible and tangible properties of things, his conceptions must be erroneous, and his operations unsuccessful. As the race learned them, he gathers from concrete objects the truths of number, form and relationship in position.

Here he lays the basis of all knowledge through observation, for what he actually sees remains faster in his memory than what is described to him; and what he makes, leaves a lasting impression on his mind. So that the question of education is the taking of these instincts and activities and giving them direction; for through direction and organization they tend towards valuable results instead of being left to mere impulsive expression.

What are the results we may reasonably expect from the kindergarten? The child should know and express that things are hard, soft, smooth, rough, light, heavy, brittle; should be familiar with the ordinary colors; regular geometric shapes, as round, square, oblong, triangles; typical solid forms, as sphere, cube, cylinder, triangles, square and other prisms. He should be able to draw, cut and color these forms; to count and measure in inches; to construct with his gifts and paper and to give oral expression of what he has done.

With the passing of the child from the kindergarten to the primary grade, comes an abrupt and unwelcome change. His freedom and spontaneity of motor activity is mercilessly curtailed. External force, not natural interests, compels a non-voluntary attention to meaningless symbols. The change has been from that of liberty to a form of slavery. The continued restraint to motor activity prepares the way for complete machine-like passivity. Then the victory of the primary teacher has been achieved, for she often welcomes the other child to her class rather than the kindergartner, and why? Because the former is passive and the latter active.

This breach between the kindergarten and the primary grade remains to a great extent until the child reaches the so-called manual training class. Perhaps the breach is becoming narrower. With the evolution of modern social conditions have come changes in our views of obtaining mental discipline and culture. We are turning from the traditional and classical to the practical and scientific. This is manifested by the introduction in our schools of nature study, art work, constructive work, and clay modelling. But we should not be satisfied with what we have accomplished. Much more remains yet to be done. We must not adapt our kindergarten to our primary grades but rather modify the work of the latter by bringing into it more of the spirit of the former.

Should not the knowledge of common things, the experiences from real life, and the rudimentary constructive instincts be made the basis for expanding the knowledge, enriching the experiences, and developing the powers of the child, not only in the kindergarten, but in all grades of our school work. This would give sequence and naturalness of growth, and relate and unify the the school with the home.

It is not my purpose to prescribe for each grade a definte course of handwork. That must be worked out by the individual teacher, through the knowledge of the materials available within the vicinity of the school. But that there be sequence and continuity some general outlines of a course becomes necessary. Such an outline is already provided in the Program of Studies of the Education Department. The art work, clay modelling, constructive work and nature study should go hand in hand. Neither should we stop here, for these are directly or indirectly related to every other subject on the curriculum. In fact, there is no subject so unifying as manual training, forming as it does the medium for connection with other subjects. Much of the effectiveness of manual training is lost if this connection is not recognized by the teacher.

The constructive work must be so planned as to employ the maximum of thought, to enable the pupil to execute his own problems; to compel him to use his knowledge of drawing and arithmetic; to interest him in the geography of his own materials and to reveal to him that the trained mind is the real source of all the products of the skilled hand.

The following suggestions grow out of the course prescribed for Form I. by the Department. Perhaps no material is so easily obtainable and comparatively cheap as paper in its various weights and colors. It is easy to manipulate and necessitates little waste, and lends itself to a great variety in construction.

Much profit in concentrating observation of form, proportion, relation of parts, training manual dexterity, would be derived from cutting out pictures such as portraits, animals, furniture, etc. from papers and magazines. When a sufficiently large collection is made, those cuttings expressing some unity, having some common central interest, might be grouped and mounted. Coupled with this might be the cutting out of capital letters to give names to these groups. This would prevent the mixing of small and capital letters which often occurs on the drawings in the boy's initial work at manual training. The regular geometric forms afford splendid exercises in drawing and cutting. Beautiful designs may be formed by symmetrical arrangement of squares, circles, triangles, and other regular forms; From nature may be cut the forms of leaves, stems and fruits; from home life, stove kettle, table, scuttle, fence, barns and animals.

Children vie with each other in measuring things. Considerable practical work should be given here, where accurate measurement should be made in inch, half and quarter inches. Squares, oblongs, circles, should be made of certain measurements, and embodied in making such objects as bookmarks, calendars, paper mats, match strikes and other simple objects.

As a step leading to drawings of plans and elevations, pupils should be required to draw the appearances of the tops, and sides of simple objects as cubes, cylinders, bricks, boxes, and spools.

In this grade, too, the kindergarten practice of weaving paper mats, should be continued, increasing in complexity the object to be made. Other materials, too, obtainable from nature might be used.

Another important field is modelling in clay or plasticine. Clay, because of its structure is quite plastic; it takes an impression easily and requires no tools but the hands. It affords a splendid training in form through touch and is admirably suited to children in forming solid bodies with which they are familiar, as ball, fruit, vegetables, animals and simple pottery. Here, sight and touch supplement and prove each other. The eye must detect errors in form and proportion and the hand must correct them.

The work in Form II. or Second Book classes should be a continuation of the work in the First Form, but in increasing complexity. New light must be thrown on the material employed in the work, respecting its origin, processes it has undergone, and the purposes it has served in the past. An interesting study for instance could be made of paper, its different grades, qualities, uses; raw material, going back to pulp, pulpwood, and the forest; why so much is used in modern times; what took its place in earlier times; in what respects it is superior to its former substitutes.

Paper cutting should serve the purpose of illustration in reading, geography, and nature study lessons. In the reader the child could, by free cutting, produce the outline of the fox, crow, sled, reindeer; leaves, petals, flowers, fruit, snowflakes, and so on.

Such typical forms as the square, oblong, triangle, oval, circle, hexagon, pentagon, and the octagon, with their modifications, should be studied. The children should be stimulated to observe them the nature, art, or architecture, as the round and oval in seeds, buds, and fruit; the oblong in books, table, field, door-panel, window; and the cylindrical in tree, stem, chair, post and pillar; the pentagon in the flowers of the Rosacea and the hexagon in the snowflake.

The drawing with rules and compass of the geometric figures should be continued. Designs based on the square, hexagon, and other regular figures should be encouraged. The conventional form of leaf and flowers should furnish the connection between these geometric forms and the forms in nature. All may be used as bases for design in running border, book cover, calendar, wall paper, or figure in carpet or curtain.

In connection with the study and observation of forms and objects, there should be plenty of measurement to the fineness of eighths of inches. Measure everything; length of room, height of door, width of panel, depth of box, girth of tree, breadth of leaf, height of playmate. The exercise of measuring and recording every part of the chair or table, trains not only to accuracy in measurement, but to observation in construction, in form, and in relationship of part to part.

The opportunities are greater in this Form for making from heavy paper or light cardboard typical objects of use and beauty, as envelopes, picture frames, memorandum cards, wall pockets, pencil boxes, candy boxes, napkin rings, etc. These afford an extended field for selection of material and for individuality in design. The laying out, cutting, tying, and pasting afford splendid facilities for using instruments, manipulating material and exercising good judgment.

While the work of Form III. or Third Book must include much of the work of the previous form, yet there should be a decided advance in beauty and scope of design, skill of workmanship, accuracy in measurement and originality of project. Articles of more substantial nature should be made of heavy cardboard where marking out, scoring and cutting precede the folding into the required shape. Greater use should be made of paste as a means of fastening. Some articles, such as tie boxes, scrap books, letter holders, might well be made of the pulp board, and the surface covered with glazed or other cover paper. Children should be encouraged to devise their own method of hingeing covers to boxes, and providing suitable catches or fasteners. They should be guided and stimulated to decorate such objects as photo frames, magazine covers, boxes, lamp shades, calendars and program cards. They should be taught that simplicity in design is in better taste than elaboration in decoration. Specimens of good design and decoration should be collected from every source possible by teachers and pupil. Children do not become good judges of art in a day. That is a growth, and will be slow enough despite our most vigilant and persistent efforts.

Splendid work has been done in the regular class room in raffia work. Pupils have dyed their own material and wrought out their own color design in mat and basket. While affording ample opportunity for color blending, designing and nimbleness of hand, progress in the work is slow, so that with over-crowded curriculum, not more than one or two objects can be completed in a year. Could it be used with other materials, as cane, reed, or splints, greater profit might accrue. The familiar sight of the thrifty squaw with her bulky load of baskets of all sizes and colors on her shoulders is full of suggestion to use the material at hand. Is it not possible that our boys and girls could make a variety of objects from this material which in rural places ought not be difficult to obtain.

With but little equipment, of knives, compasses, set squares, sand paper and thin boards, simple and useful articles could be made in the class room. The work should be preceded by working drawings, both freehand and with instruments. During the present year the writer has had two classes from the Senior Third boys in the manual training room whose work has been very gratifying, indeed, showing that the more heroic work might be undertaken by the larger boys of the lower grades.

Considerable attention should be given to the drawing of geometric figures and the development of design based on them. Freehand drawings and plans and elevations should be made of appropriate objects. Once the child recognizes this as a means of expression, the success of the work is assured.

Children are quick to observe and need only to be started in the right direction to acquaint themselves with the principles of construction so manifest everywhere. Joints should be studied with applications and reasons for their use; mortise and tenon, half-lap, mitre, dovetail, housing; dowel and glue joints.

Every locality affords opportunity for observing the materials that enter into the construction of our buildings, sidewalks, and bridges. So far as possible these should be followed through all the processes they undergo to fit them for their places in the structure; the brick yard with its clay, sand, moulds, and kilns; the quarry, with the blasting and chiselling; limestone, lime-kiln, slaking, sand and mortar; the forest, with the cutting of trees, transportation of logs, sawing, piling, drying, shrinking, and warping; and the local mill, with its planing, matching, turning, and framing.

I have made no distinction between the work of girls and boys, believing that it should be the same through these forms. Neither have I referred to sewing, which might well be undertaken by boys and girls alike.

Boys, in particular, should be encouraged to procure tools for use at home and advised as to the preparation of simple work benches. Not all tools should be purchased at once. Additions should be made as occasion demands. Beginning with a hammer and knife, a variety of rustic articles could be made from small branches of trees as is well suggested by Inspector Leake in the Constructive Department of the Canadian Teacher. Boys will find plenty to do to exercise their ingenuity if only given a start.

The objects of these forms of practice in the school or in the home are not found chiefly in themselves, or in technical skill, merely, but in their connection with real life. On the individual side they respond to the child's need of action, of expression, of desire to do something. The instinct of construction and production should be systematically laid hold of in the years of childhood and youth. At present, these impulses to act, and to make, which lie at the basis of the industrial system, are either practically neglected, or positively distorted during the school period.

With the introduction of manual training into our populous centres, and the recognition of its value for mental discipline, as well as its practical value, the public is slowly awakening to the need of extending and adapting it to all grades in our schools. We have only to trace our children from the schools to their life work to see that we are neglecting the masses to serve the few. About one per cent. reaches the university and only five per cent. the high school and Collegiate Institutes. Fifty per cent. leave school as soon as they have acquired the rudiments of learning and before they have completed the public school course. Social and financial conditions prevent further attendance at school. Its work is not considered as related to the occupations and industries of later life. Should not our system of public education make greater provision for the ninety-five per cent. who enter agricultural, commercial, and industrial pursuits? Business colleges, correspondence schools, and too few technical schools are endeavoring to meet the need, but these are either too expensive or too remotely situated to solve the difficulty.

A barrier to the success of manual instruction lies partly with our teachers, who, having received no special training in this direction, feel incompetent to undertake it, and who feel that the introduction of manual work in the class room retards, rather than promotes progress in the other subjects of the curriculum. The present training of the teachers in the normal schools should correct this misconception and qualify them to introduce and carry on the work successfully. Special summer courses for teachers, who already have normal school training, with grants either from the Education Department or from the Boards of Education would doubtless be very helpful in preparing them for the work.

MANUAL TRAINING FROM A MECHANIC'S VIEW-POINT —DESIGN AND CONSTRUCTION.

A. N. Scarrow, Peterboro.

Miss President—Ladies and Gentlemen,—Your Committee have assigned to me a subject so broad that I shall be compelled to limit my paper almost entirely to the first part, namely: Manual Training from a Mechanic's View-Point; after which I shall very briefly state what I believe to be the starting point in Design for Manual Training, and its relation to Construction from the standpoint of a Mechanic.

Carlyle has defined man as "the tool-using animal." If this is even an approximately correct definition of this indefinable being, then there must be something fundamental in tool-using—in Manual Training. Not to go into the history of this tool-using as developed in the race, it may be said that carpentery is a very primitive art and has developed with the development of the race. This has been true because it was necessary to the very existence of the race. Now, there is a very wise educational principle, that development in the individual naturally follows along lines parallel with the development of the race. This development in the race has been by means of mechanical activities, first through necessity and afterwards through choice. The work of mankind has been forced upon them by an inner necessity which has given rise to a desire to follow along those lines through an inherited instinct. Such seems to be the compensation due to earnest endeavor, that faithful effort towards a worthy end brings pleasure. This is interest. Interest has been defined as an estimation of value, a feeling of worth, and this feeling of worth arises from a vividly realized relationship between the activity performed and the development of the self, or survival, as it has been called.

Now, this applied to Manual Training would mean that the exercise should be suited to the boy, not only in the sense that he should be able to do it, but that he has a desire to do it, because it fits into some plan of his own, or in other words, he sees it to be of use towards self-realization. Such is the conclusion that a mechanic would reach, but from a very different process of reasoning. He says at once: If a boy is to develop his faculties through exercise in planning and constructing objects, why not let him work on useful objects, those that can be applied to the various needs of the boy in his home or social life? This brings us to what will be called by some educators very dangerous ground. Their first question will be—Must we then sacrifice mental and moral development on the mean altar of usefulness? The answer, I believe, is emphatically: No. There may be quite as much, and even more, mental and moral development in designing and constructing a useful thing, as in following along a certain line of models planned by the teacher, or by some educator of forty or fifty years ago.

A fundamental principle in every lesson is that it should be adapted to the learner. This, it is almost impossible to do in many of the subjects of the curriculum, because of the fact of having to teach individuals of varied attainments, and more varied interests, in classes; but in Manual Training the principle of adaptation is open to us if we will adapt ourselves to it, and be ready to encourage and help each boy when he comes to us for suggestion or guidance.

This subject of free choice on the part of the pupil increases the teacher's difficulty in directing the work; for it, to a great extent, prevents class teaching. This, however, is simplified in another direction, because of the added interest and earnest desire of the pupil to do the work well. Instead of waiting for the teacher's direction, the boy goes ahead until he feels that he is on dangerous ground and then comes for advice or suggestion. This is a new attitude of the pupil to his work; instead of requiring to be urged to carefulness and accuracy, his chief fear is that the work will not reach his ideal; and every source of information is searched toward doing the work well.

This leads him to a very important field of education for every real mechanic—the observation of the work of others all around. It has become almost proverbial that the barber looks at your hair, the shoemaker at your shoes, the tailor at your clothes and the builder at the buildings around him. If this is true, and if we can so interest our boys in their work, that they will be looking for good designs and suitable methods of construction in all their surroundings, have we not opened for them a source of interest, of pleasure, and of education that they do not get through the regular course of models? This is the method of Nature Study and indeed should be the method of many other subjects, as well as of Manual Training. Is it any wonder if a builder sits in his pew at church during a lull of interest in the sermon, and contemplates the design of the building, and the construction and decoration of its pillars and arches? And a student who will not carry interest in his studies outside of the school will not make much of a success in any line of work.

Another important reason for this freedom of choice is that the pupil's interest then makes a close connection between the school and the home. In the past the school life has with children, as well as with more advanced pupils, been a thing apart from the real activities of life outside the school. To bring about a connection between the home and the school is of vital importance to the school, and is a source of real profit to the home, and nowhere can this be done with more effect than in Manual Training. This is the more important for the home in this age because of the changed conditions there. The time was when all of this work was carried on in the home under the inspiration of necessity and the direction of the parents, but that time seems now to have passed for the country boy as well as for the city boy. True the boy in the country has still to put forth some self-designed and self-directed effort, and in so far has the advantage of his city brother; but the various means by which our fathers made their life, as well as made their living, have gradually been lost from the educating forces of the home. Our fathers sometimes with a laudable dissatisfaction deplored the fact that they had not a better chance for getting an education, not realizing what we have come to know from their insight and ability, that while making a living they were getting a very real education, that gave them ability to apply themselves to whatever came in the way of duty. Whatever advantage the country boy may have over the city boy, arises from the fact that he acts more on his own initiative and follows out his own plans, and this is a privilege every pupil should have in the Manual Arts in every school.

Upon such work a boy will put more thought and thus receive more training of head and heart as well as of hand. Only thought counts in education. Rote-work, parrot methods should long ago have been relegated to the scrap-heap as a bye-product; but too often even to the present day they are preserved as if they were the real end in view. To say words without meaning is to become less capable of wise thought, ard to perform acts with little meaning is scarcely more to be commended. Is the "blind use of words" any worse than the blind use of tools? And yet this is too often the kind of effort in Manual Training. One thing the mechanic has in view and that is a definite place for every piece of work performed, and this usually is only a small part of a much larger, but well understood whole.

The best illustration of this thoughtless work that I ever noticed amongst mechanics was shown by a man, who having learned the meaning of certain lines and marks laid out by the master-builder, searched for these on every side of every stick of timber, that he might follow the directions there given. It never occurred to this man, that he might have known by one turn of the stick, or even without turning it, that such a timber belonged in a certain place, and should have mortices or tenons accordingly. His work was the merest manual labor in the narrowest sense, the kind that can never pay either the laborer or his employer. No man can be interested in such work, for interest is an attendant of thought, of plan. Such a workman has his counterpart in the boy who is forced to follow out a certain line of models without ever having the priceless privilege of launching out on his own responsibility, either "to make a spoon or spoil a horn." Boys and girls like to be trusted, and will usually endeavor to prove worthy of trust, even though they may mistrust themselves all the while. This very mistrust sharpens the intelligence and results in a more perfect product, both in the article made and in the pupil, which is of far greater concern to the teacher.

How few of us ever cease to enjoy doing work that is praiseworthy, if we can do such work; and it is much more true that children are pleased to do work worthy of their own and others' commendation. In by-gone years we used, now and then, to find a pupil who had a holy ambition to try his problem for himself before being given the solution; but too often under the later instruction pupils are satisfied to have all done for them. This is dwarfing, and not more so in the regular school course than in Manual Training. The spirit of the old masters, who did their work for the love of it—"both the unseen and the seen"—realizing that "the gods see everywhere," is not too common these days, either amongst mechanics or pupils, and should not be discouraged by too much direction or assistance.

In the workshop the learner is given work to do that is within his ability, and this he is expected to finish in a workmanlike manner. The very fact of being trusted creates in him self-reliance, and when he sees his work taking its place along side of the work of others, he feels a pride of growing selfhood—a kind of pride that makes men out of the boys we find in all our schools. Such an attitude towards labor restores its dignity, and no boy who has ever learned to take pride in doing work that is workmanlike, and looking for inspiration and guidance to workmen whom he knows to be masters in their line of work, will ever, even though his calling ultimately may be very different, cease to look with respect and almost reverence upon the man who honorably maintains the dignity of a master mechanic. Thus the professional man will honor the man of skill in any line of work, and the workman himself, having had the privilege of demonstrating his ability to his fellows, and winning their respect will not cease to respect himself because he works with his hands. This self-respect, while doing worthy work, is the first essential to a workman. No man will do his best work who does not feel a glow of enthusiasm for his task, and nothing will undermine character more than distaste for one's chosen line of work, or a feeling of littleness in the eyes of one's fellows. Every mechanic who understands the spirit and aims of Manual Training must rejoice to see it introduced into the school, if it is carried on in real seriousness as something of value and not merely as a little play with tools.

This better understanding of work and the conditions under which it is performed will create a better feeling between an employer and his employees and also between a mechanic and the general public. The pride of place and birth, which is too often due to ignorance, may some time give place to a feeling of shame at the thought of not being able to do work that is easy and pleasant for most others. Be that as it may, a more general appreciation of good work will create a demand for the best, and will be a saving factor for labor itself; for the greatest danger to labor at this time is the tendency to work merely for the pay, and not with any respect for the work done. Probably the cause of this is that the mechanic feels that his work is not appreciated, and he in turn does not respect the rights of a man who will not estimate his efforts at their proper value. If Manual Training can, by bringing together all classes of the community for a few years of thoughtful, earnest, appreciative effort along mechanical lines, overcome this estrangement and lack of sympathy between different classes in the community, it will have accomplished much for the social well-being of the state.

There is still another particular in which the Manual Training Instructor is learning from the mechanic. The latter finds much inspiration and no little pleasure in working with his fellow-workmen in the accomplishment of some common aim. This community of interest and of effort is being very advantageously employed in the Manual Training classes of our schools. Boys like to unite with their classmates for a common purpose, and this co-operative work helps to cultivate that social spirit that is much needed, but is scarcely recognized in the teaching of most other subjects of the school course. The matter of correlation of thought and of effort broadens the view and gives rise to a co-operation that sharpens the intellect. As the proverb has it: "Wit sharpeneth wit, as iron, iron." In looking over the Minister's report just issued, I find that much of the work there shown is the result of co-operation in the class, and gives evidence of a high appreciation, by the teachers, of this co-operative work.

Now, I have given what appears to me to be a general view of Manual Training, as it might be viewed by a mechanic. I should like to add a few observations concerning the methods. It is acknowledged by all that the work, especially in the more advanced stages, should cultivate carefulness and accuracy, and to this end students are encouraged to make the most accurate tests with rule or square.

I believe that even this good principle may be carried to an extreme, and be made a means of hampering the pupil and hindering a proper growth of self-confidence, as well as of mental development. It used to be, if it is not still, justly objected to much of the teaching of arithmetic that a child could not apply the work to real conditions arising in actual business affairs. If asked to find the cost of a load of grain sold at the market for a certain price, the student too often had to appeal to the text-book and slate and pencil, before being sure of the method of procedure and the correct result. His father, who had received only a few days' schooling in his life, was surprised at this apparent stupidity; for he, without text-book, pencil or paper, could find the correct result by working out a well understood mental problem. In the work of the manual training room, I believe it to be a good plan to encourage the boy to apply his judgment to the problem or model as often as the rule or square, and if it is a matter that necessitates perfect accuracy the tool may be applied afterwards. This cultivates the judgment of the pupil, and gives him confidence to apply his skill in every emergency that may arise in the common affairs of life.

Another matter that counts for much in the real affairs of the shop or factory is to get all that is possible out of the material provided. Every pupil should be taught to cut his stock to the very best advantage, and this is the more necessary in these days, for the reason that material is expensive, and for the still better reason, that it seems to be the general tendency of boys to waste material that is supplied to them free of charge. The matter of a wise economy is. I believe, of sufficient importance to warrant the teacher in giving it attention. Moreover. there is quite as much training in laying out work so as to economize material, as in making a design to suit a certain space. This training is often overlooked, and the material given to pupils already cut to size. Such is not generally the case with mechanics. Each workman must be able, except in the larger factories, to select his material and take it out of the rough; and this is a training that should not be omitted in the Manual Training class.

Now, I have time only for a word in regard to Design. As indicated above, the starting point for a working basis in design is observation of the work of others. By thoughtful observation and comparison of designs, taste is cultivated, and this is the beginning of power in designing. A discriminating taste is necessary to every student of design, and this can best be cultivated through the study of the best models. This, however, is only the starting point and must lead to freedom of invention in harmony with the laws of beauty. The younger a pupil is when he starts to make designs the more freedom he will show, and although the product may at times be crude in the eyes of an artist, yet this crudeness of individuality is more to be desired than the blind copying of the work of others, however good the copy may be from an artistic point of view.

There is one matter of importance in connection with design that is sometimes overlooked by the artist —that is the limitations of space and material. It is not an uncommon thing for a mechanic to find that the design of a building will not work out in actual practice as intended by the architect. Modifications must be made to suit the limitations of space and of material which the designer overlooked. It is necessary, therefore, that he who would design well must know the steps by actual experience from the inception of the idea and its expression on paper, to the ultimate completion of the object in the appropriate material. That his design may thus be consistent, he must know the possibilities and the limitations of the material, and this knowledge can be adequately gained only by actual experience in construction. The logical order is, first the idea, secondly, the working out of a suitable design for its expression, and lastly, its execution in the appropriate medium. Such is the work that produces masters in the sphere of mechanics, and such, I believe, is possible and desirable in our manual training classes.

Now, I have tried to show that this thoughtful, thought-inspiring, self-designed and self-directed work, such as that done by the older mechanics, and by many of the best of the present day, is the best work for the development of the boy in the Manual Training class, and such as will do more to develop confidence and power than any line of work that may be planned and directed solely by the teacher. With such work carried out in the spirit of the old masters, we may in time approach the ideal of the poet when he wrote:

"Self-knowledge, self-reverence, self-control—these three lead life to sovereign power."

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Martin, W. H., St. Marys.
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Ovens, Miss F. M., 235 Main St., St. Johns, N.B.
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Park, William, Brantford.
Parks, Miss Elsie A., Box 164 Napanee.
Petch, Samuel G., Griersville.
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Phillips, Miss Mabel, Glen Oak.
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Plewes, J. W., Chatham.
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Willis, Miss Maude, Lucan.
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Wilson, Miss Mabel, Box 164, Orillia.
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